Practice and Prospects for Integrated Coastal Zone Management (ICZM) in the UK:

Improving Non-Statutory Coastal Governance through Collaboration

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by

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Abstract

The aim of this thesis is to critically assess the implementation of Integrated Coastal Zone Management (ICZM) in the wider context of coastal planning regimes in order to develop a more effective model of collaboration for coastal governance.

This research is set within the context of a complex system of rights and responsibilities which dominate governance of the UK coastline. Within this system of governance, ICZM stands out as a means of adopting a joined-up approach towards the many different interests in coastal areas – both on the land and at sea. However the implementation of ICZM has traditionally been weak - without statutory powers ICZM has suffered from a voluntary approach to implementation, being delivered through bodies collectively known as coastal or estuary partnerships. Coastal partnerships are highly participatory in nature, but can only deliver limited outcomes due to the lack of national coastal policies, and deficits in financial and human resources. In addition, as the Marine and Coastal Access Act and Water Framework Directive come into full legal force, with overlapping jurisdictions in the coastal zone, this raises questions for the future role of non-statutory coastal and estuary partnerships.

The research therefore addresses the problems of ICZM in two ways. First, considering ICZM in the wider context of coastal planning regimes, attention is given to the way that the problems of the coast are socially constructed. This is achieved by comparing the social construction of coastal, marine and river catchment problems using the prerequisites outlined by John Hannigan for the social construction of an environmental problem. Whilst identifying limitations in Hannigan's model regarding the influence of certain conditions in constructing a problem, and the model's inability to explain progress from problem definition to implementation of a solution, most significantly, it has been found organisations which are able to define a problem also dominate in the proposal and implementation of solutions. Therefore, as the "coastal problem" is subject to ambiguous definitions in which issues of the land and sea are not considered together, this has resulted in weaknesses in addressing coastal problems at the national level.

Secondly, in addressing the ways that ICZM implementation could be improved, the communicative planning approach outlined by Patsy Healey and the model of inter-organisational collaboration developed by Barbara Gray are identified as providing conditions that would enable greater integration of stakeholders within coastal partnerships, through for example open dialogue, joint learning and consensus building, and more importantly, facilitating the integration of ICZM and other coastal governance regimes. Using case studies from ICZM, Marine Planning and River Basin Management, it has been shown that by adapting Hannigan and Gray's models into a cycle of collaborative policy making, building consensus on the nature of the problem at an early stage in decision making fosters a greater sense of ownership and willingness to participate amongst stakeholders in collaborative arrangements.

Finally, it is recommended that in trying to improve the implementation of ICZM, greater attention is given to the communication of scientific evidence in simpler, more engaging terms to build greater consensus on the nature of coastal problems, and that the model of collaborative policy making is used to help stakeholders understand the benefits of collaborative working and ensure that the right conditions are in place to aid collaboration and consensus at each stage of decision making.

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List of Abbreviations and Acronyms

CCW	Countryside Council for Wales
CPRE	Commission for the Protection of Rural England
CRoW	Countryside Rights of Way
DCLG	Department of Communities and Local Government
DEFRA	Department of Environment, Food and Rural Affairs
DETR	Department of the Environment, Transport and the Regions
DoE	Department of the Environment
EA	Environment Agency
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EU	European Union
GESAMP	Joint Group of Experts on Scientific Aspects of Marine Environmental Protection
HELCOM	Helsinki Commission (the Baltic Marine Environment Protection Commission)
HEP	Human Exceptionalist/Exemptionalist Paradigm
ICES	International Council for the Exploration of the Seas
ICM	Integrated Coastal Management
ICZM	Integrated Coastal Zone Management
IPCC	Inter-governmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
MARPOL	Marine Pollution (from the International Convention for the Prevention of Pollution From Ships)
MAFF	Ministry of Agriculture, Fisheries and Food
MEDI	Marine Environmental Data Initiative
MMO	Marine Management Organisation
MP	Marine Planning
MS	Marine Scotland
MSP	Marine Spatial Planning
NEP	New Ecological Paradigm
OSPAR	Oslo-Paris Convention
PPG	Planning Policy Guidance
PPS	Planning Policy Statement

List of Abbreviations and Acronyms Continued

RBD	River Basin District
RBM	River Basin Management
RBMP	River Basin Management Plan
RCEP	Royal Commission on Environmental Pollution
RSPB	Royal Society for the Protection of Birds
SEPA	Scottish Environmental Protection Authority
SNH	Scottish Natural Heritage
UKCIP	United Kingdom Climate Impacts Programme
UNCED	United Nations Commission on Environment and Development
UNCHE	United Nations Conference on the Human Environment
UNCLOS	United Nations Convention on the Laws of the Sea
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
WAG	Welsh Assembly Government
WCMP	Wales Coastal and Maritime Partnership
WFD	Water Framework Directive
WWF	World Wide Fund for Nature

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CHAPTER 1: Introducing the Challenge of Coastal Management in the UK

1.1 Research Context

The UK's coastline is a complex and dynamic environment of diverse landscapes, rich biodiversity and natural resources which supports a broad range of human activities. However, this situation also means that the coastal zone is a contested space, which is facing increasing competition for use of its resources and at the same time needing protection from forces for change - natural environmental and manmade pressures which threaten to diminish this resource base.

In response, coastal management in the form of coastal defences, drainage and the construction of man-made harbours has existed since Roman times (Ballinger, 1999 and Fleming, in Barrett, 1992), and the growth in maritime activity from the Sixteenth Century onwards has led to the introduction and increasing use of formalised control over ocean space (Gibson, 1993), developing alongside the regulation of land-based activities.

Although coastal management itself has many definitions, some examples offer an insight into what coastal management is and what it is intended to achieve. Starting with the concept of management, Ehler and Basta describe it as "a set of related activities carried out to achieve desired objectives" (1993:7), and Kay and Alder suggest that coastal management can mean either the day-to-day direction of activities occurring in the coastal zone (operational management), or the overall control of the organisations which oversee those activities (strategic management) (2005:77).

According to Post and Lundin (1996:1), coastal management is "a process of governance", or, for America's National Oceanic and Atmospheric Administration:

> "a complex interaction of laws, programs and efforts to evaluate trade-offs and make decisions about how to use, conserve and value the resources and opportunities of the coastal zone" (2006:1).

ICZM has also more recently been defined in the UK by the Department for Environment, Food and Rural Affairs (DEFRA) as:

> *"Integrated Coastal Zone Management means adopting a joined-up approach towards the many different interests in coastal areas – both on the land and at sea. It is the*

process of harmonising the different policies and decision-making structures, and bringing together coastal stakeholders to take concerted action towards achieving common goals. Integrating the many different interests effectively means we can look at the coast in a holistic way." (DEFRA, 2009:4)

Contemporary challenges for managing the coastal zone may be classified into three main themes:

1. Complex, cumulative problems,
2. Multi-dimensional change, and
3. Escaping territorial and sectoral boundaries. (National Trust, 2006)

1.1.1 Complex, cumulative problems

Besides accommodating the natural processes of environmental change such as erosion and deposition, one of the greatest challenges for the planning and management of coastal zones is the effects of climate change. With sea levels predicted to rise and greater risk of extreme weather events such as storms and floods, it is expected that global warming will change the physical, biological and biochemical characteristics of the seas, and will reshape the physical landscape and activities that currently take place at the coast. It is, however, currently difficult to be precise about the scale of these effects (UKCIP, 1998, cited in Royal Commission on Environmental Pollution, 2002:136).

Also, the effects of pollution from land based and offshore sources contributes to changes in the coastal environment, through the loss of biodiversity and adverse changes to water quality which can impact on the economy and human health. Despite increasing controls and regulations designed to prevent or limit pollution, the continuing discharge of pollutants from land-based and marine sources such as industrial waste, sewage, oil, heavy metals and agrichemicals, plus marine and beach litter and tipping represents an ongoing concern (see DEFRA, 2010a, *Charting Progress 2*).

The uncertainty and long-term nature of the effects of climate change and pollution, which are already manifest in terms of increased environmental hazards and increasing costs of protective infrastructure (European Commission, 1999a:7), are closely bound with the issue of resilience. Resilience is the ability of the coastal environment to absorb pressures and maintain its essential functions, for example as a source of fisheries or a natural defence against flooding. These issues therefore require responses over a variety of spatial and temporal scales.

1.1.2 Multi-dimensional change

Approximately 16.9 million people live within 10Km of the UK's coast (Atkins, 2004), and this number is due to increase with population growth, longer life expectancy, increasing affluence and migration (Ibid, p17).

The loss of traditional industries such as ship building and the decreasing popularity of British seaside holidays in the face of overseas competition have had major negative effects for coastal communities in the form of economic depression and social exclusion. For example Blackpool is ranked as the 24th most deprived out of 354 local authority areas in England (House of Commons CLG Committee, 2007). Many coastal towns are characterised by low wage, low skill seasonal employment, plus a demographic trend of outward migration by the young and an increasing elderly population placing additional demands on health and social services.

However, although the general perception of coastal towns is one of decline, the *Seaside Towns Research Project* found that levels of unemployment are comparable to other non-coastal towns, and that seaside towns have actually seen strong employment growth from 1971-2001, and that social and economic problems are due to in-migration and housing demand outstripping local employment growth (Beatty and Fothergill, 2003:5).

Whilst the tourism industry has therefore remained a major part of the coastal economy, diversification of the economic base into new sectors such as services and ecotourism may provide more positive benefits. However the European Commission (1999a) observes that traditional, low impact uses of the coastal zone are being replaced with more high impact, intensive uses that may be economically attractive in the short term but threaten the long term sustainability of the coasts natural assets.

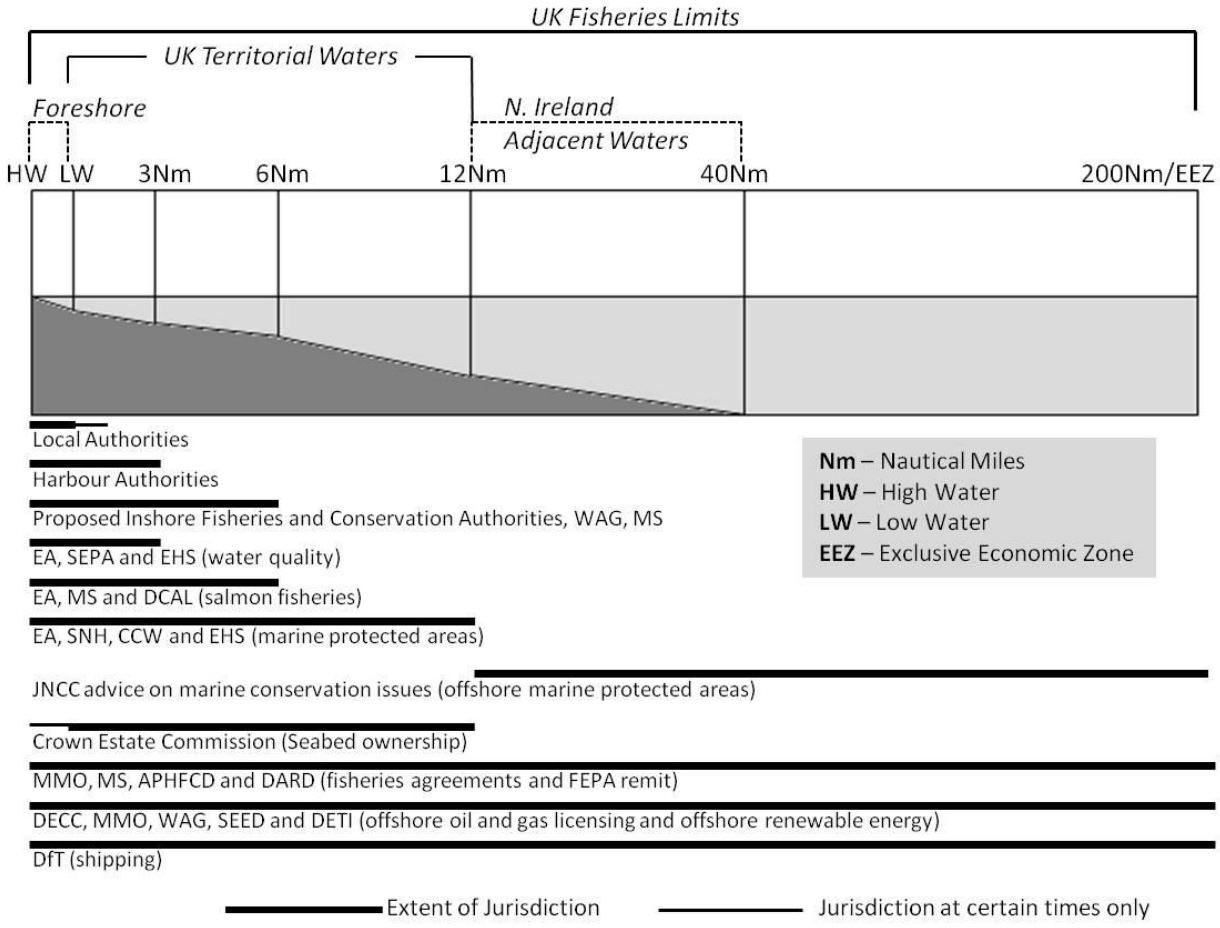
Managing the coastal zone therefore relies on being able to balance the economic, social and environmental dimensions of change.

1.1.3 Escaping territorial and sectoral boundaries

Arrangements for planning and managing the coastal zone have previously been characterised by an extension of land-based policies and controls to the marine environment, a plethora of uncoordinated sector-based policies and initiatives and a complex mix of ownership, property rights, rules and

regulations (Lloyd and Peel, 2004). Part of this complexity can be seen in Figure 1.1 below, which illustrates the jurisdictions of various local and national organisations across the coastal zone.

Figure 1.1: Geographical and Legal Jurisdictions in the Coastal Zone



Key to Organisations

APHFCD - Animal and Plant Health, Fisheries and Countryside Division (Wales)
CCW – Countryside Council for Wales
DARD – Department of Agriculture and Rural Development (NI)
DCAL – Department of Culture, Arts and Leisure (NI)
DECC – Department of Energy and Climate Change
DEFRA – Department of the Environment, Food and Rural Affairs
DETI – Department of Enterprise, Trade and Investment (NI)
DfT – Department for Transport
EA – Environment Agency
EHS – Environment and Heritage Service (NI)
JNCC – Joint Nature Conservation Committee
MMO – Marine Management Organisation
MS – Marine Scotland
SEED – Scottish Executive Energy Directorate
SEPA – Scottish Environmental Protection Authority
SNH – Scottish Natural Heritage
WAG – Welsh Assembly Government

Source: Based on Atkins (2004), revisions by Author

This approach has two main disadvantages. Firstly, land use planning approaches in the past have failed to understand the dynamics of the relationship between water resources and land management, for example the coast of East Anglia is threatened by erosion and flooding despite – and probably because of – investment in sea walls which trap sand and aggravate erosion in other areas (European Commission, 1999a:8).

Secondly, initiatives for particular sectors or administrative units of planning have not fully considered the effects they may have on other sectors or locations. Nor have they realised the potential to improve the collection and dissemination of environmental and other data that could be achieved by inter-sectoral and inter-organisational collaboration. The need for appropriate scientific data and information to provide an evidence based approach to policy making and local decision making is cited as important for any marine or coastal planning initiatives (see for example DEFRA, 2007a, European Commission, 1999a). Therefore more holistic and integrated approaches to planning for coastal zones, which consider both geographical integration across the land-water interface and sectoral or institutional integration are required.

This brief description of the challenges for coastal management demonstrates that the sustainability of coastal zones represents a "wicked" problem. This phrase, first coined by Rittel and Webber in 1973, refers to planning problems which are not easily definable and do not have definitive solutions due to the complex nature of the political, economic and social systems within which they exist, the unknown ramifications of introducing a solution and the lack of a definable solution – "every wicked problem can be considered to be a symptom of another problem" (1973:165). In this sense, therefore, talk of coastal management "problems" and "solutions" can only refer to symptoms as they manifest at particular times.

1.2 The Research Problem/Conceptual Framework

Having established the need for a strategic framework of coastal management to meet the challenges of sustainable development, Alder and Kay note that *coastal management programs have generally developed in response to problems experienced in the use and allocation of coastal resources, following a period of mounting public, political and scientific pressure on governments to tackle problems* (2005:19). As such, problems of the coast may therefore be considered as socially constructed.

Social constructionism, in its traditional sociological sense, is not easily defined but assumes that knowledge is historically and culturally constituted – truth is a product not of objective observation of the world, but of social interactions and processes in which people are engaged with each other (Burr, 2003:5) and their surroundings. In fact the concept of a coastal zone itself is recognised as being based not merely on physical or administrative lines but is socially, culturally and politically constituted (see Kay and Alder, 2005, and Brown *et al,* 2002).

This research therefore takes the social construction of environmental problems as a conceptual framework for analysing the implementation of coastal planning regimes in the UK. **The fundamental assumption of the research is that the definition of an environmental problem, and the formulation and implementation of a solution, is the product of a process of social construction.**

Based on this assumption, the research examines the development of coastal planning and management regimes as a response to a socially constructed environmental problem.

The current framework for coastal management in England is summarised in Figure 1.2 below, and whilst policy and planning arrangements are in a state of flux, particularly following the 2010 General Election and the change of government, the basic elements are shown to include national policy and government departments guiding four main management processes. These are:

<u>Terrestrial spatial planning</u>

Spatial planning in England is governed by policies laid down by the Department for Communities and Local Government, and Planning Policy Statements (PPS) or Planning Policy Guidance Notes (PPGs) guide developments onshore and down to Low Water Mark (LWM) at the coast, with *PPG20: the Coast* providing the first set of policy guidance specifically for development in coastal areas, although this has now been superseded by *PPS 25: Development and Flood Risk* (incorporating the supplement *Development and Coastal Change*)which outlines the policies planning authorities should use in order to prevent inappropriate development at the coast and also to protect new (and existing) developments from physical changes to the coastline such as erosion and accretion. . Planning for coastal areas is

usually incorporated in Local Development Frameworks and their associated development control and local policies, Local Area Agreements[1] and Sustainable Community Strategies.

In Scotland, terrestrial planning is governed by the *National Planning Framework* and *Scottish Planning Policy (SPP).* SPP provides a simplified set of planning policies, including those for coastal planning, and replaces National Planning Policy Guidance which was first developed to deal with pressures related to the exploitation of North Sea oil and gas in the 1970s, and *Planning Advice Note 53:Classifying the Coast for Planning Purposes* (Scottish Office, 1998). Statutory planning control under the Town and Country Planning (Scotland) Act 1997 and associated legislation extends to the mean low water mark of ordinary spring tides, and to marine fish farming (Scottish Government, 2010:20) and requires that local authorities identify coastal areas suitable for development, areas subject to significant constraints and areas unsuitable for development such as isolated coasts.

For Wales, the *Wales Spatial Plan* and *Planning Policy Wales* provide the overarching policy for terrestrial planning, and planning policy for coastal areas is supplemented by *Technical Advice Note (TAN) 14: Coastal Planning.* In producing Local Development Plans, local authorities are expected to consider the landward and seaward pressures on coastal systems of proposed developments, and only propose coastal locations for those developments that need to be on the coast (Welsh Assembly Government, 2010:78).

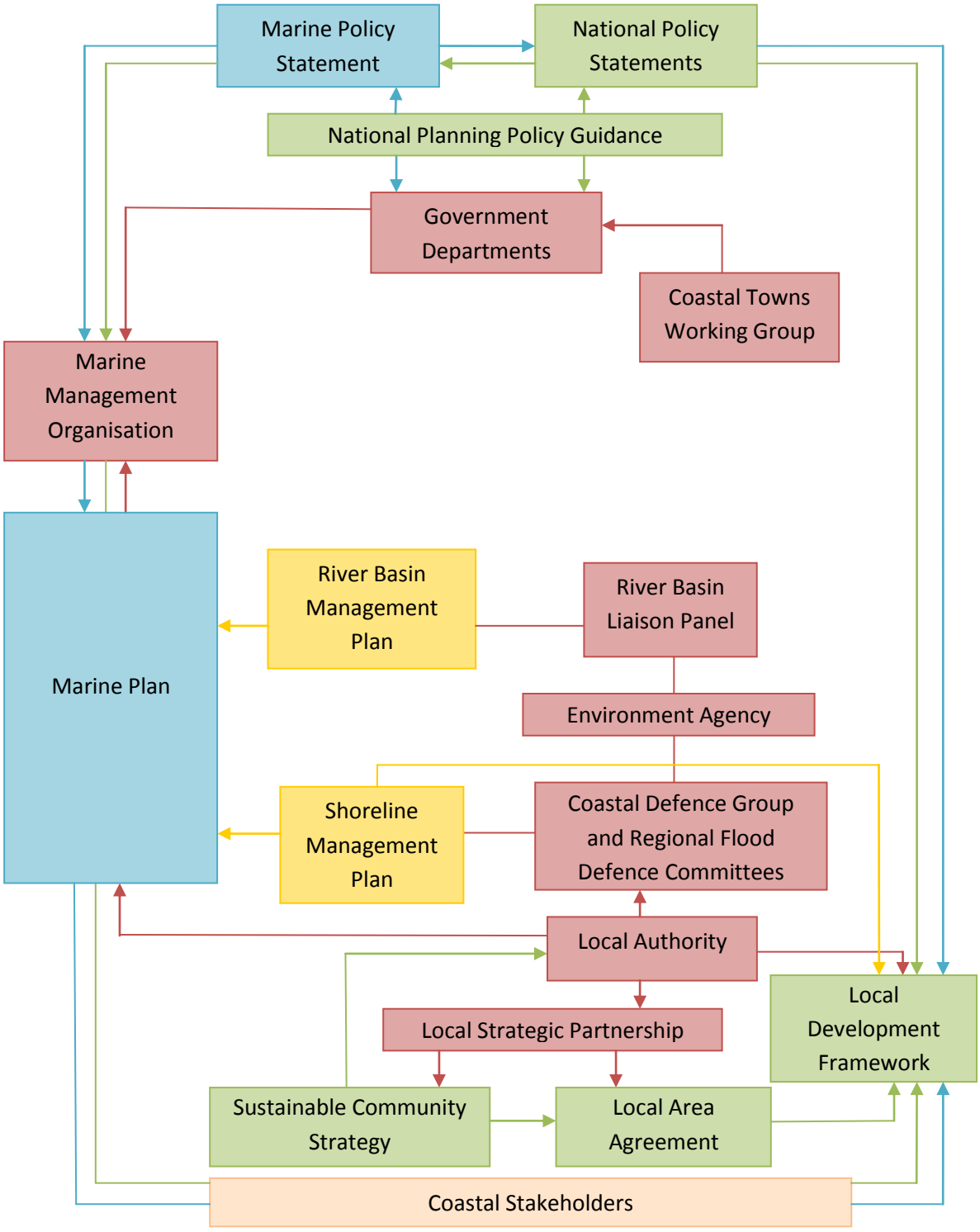
[1] Local Area Agreements were introduced by the New Labour government and are produced by Local Strategic Partnerships (LSPs). Currently LSPs only have funding until the end of the 2010/11 financial year and it is not known whether they will remain in existence after this date.

Marine Planning

Under the new Marine and Coastal Access Act, a Marine Management Organisation (MMO) has been established that will have statutory duties for fisheries, offshore renewable energy, aggregates licensing, construction, improving access to the coastline and creating a network of Marine Conservation Zones. The MMO will also be responsible for a system of marine planning, which will provide strategic guidance for use of the marine environment from High Water Mark (HWM) onshore out to 200Nm in a number of specifically defined inshore and offshore plan areas (the proposed boundaries of these are still under consideration).

In relation to the devolved administrations, the MMO will only operate in England – for Wales marine management duties will be undertaken in-house by the Welsh Assembly Government, in Scotland the requirements of the Marine (Scotland) Act will be discharged by Marine Scotland, with a national marine plan to be prepared by the Scottish Government and regional marine plans produced by Marine Planning Partnerships. In Northern Ireland a *Northern Ireland Marine Bill* is progressing through consultation stages.

Figure 1.2: the Framework of Coastal Management in England



Source: Based on DEFRA (2009), revised by author following the 2010 General Election and the abolition of several bodies including the Infrastructure Planning Commission, Regional Development Agencies and their associated Regional Spatial Strategies.

River Basin Management

Under the European Union's *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy* (the Water Framework Directive), Member States are required to reach a target of good chemical and biological status for all inland waters, ground waters and estuaries out to 1 Nautical Mile by 2015. This is to be achieved by through the production and implementation of River Basin Management Plans for defined River Basin Districts. The WFD has been transposed into UK legislation by the Water Environment (*Water Framework Directive*) (England and Wales) Regulations 2003, Water Environment and Water Services (Scotland) Act 2003 and Water Environment (*Water Framework Directive*) Regulations (*Northern Ireland*) 2003.

In the preparation of River Basin Management Plans, each Member State's waters will be classified (characterised) and a statement of Significant Water Management Issues (SWMIs) will be produced for each River Basin District. The finalised River Basin Management Plan documents, the first of which were published for England and Wales in 2009, will contain a Programme of Measures to deliver environmental objectives by 2015, which will include work to be undertaken by local and national government, water companies and other organisations. In Directive 2000/60/EC, exceptions have been made for "Heavily Modified Water Bodies" that have undergone major physical alterations for different purposes to reach "good ecological potential" status by 2015.

River Basin Management Plans are produced by the Environment Agency in England, Wales and Northern Ireland, and the Scottish Environmental Protection Agency.

Shoreline Management

Shoreline Management Plans are non-statutory plans to deal with coastal flooding and erosions risks and are prepared by Coastal Groups comprised of coastal local authorities and national environmental bodies such as Countryside Council for Wales, Scottish Natural Heritage and the Environment Agency. Plan boundaries are based on sediment cell units, that is, natural patterns of sediment (sand) transportation, and SMPs identify the risks associated with natural processes of flooding and erosion, present a long term policy framework to reduce these risks to people and the developed, historic and natural environment in a sustainable manner (DEFRA, 2003).

SMPs provide an action plan for local authorities to work towards a set of Outcome Measures that have been devised by the government – these include the number of households at risk from flooding or erosion, the contribution of flood management to maintaining habitats, and the number of planning consents given to households in flood risk areas despite Environment Agency objections.

Whilst Figure 1.2 is a far from comprehensive illustration of the institutions, regulations, strategies and initiatives that constitute activities in the coastal zone, and concentrates mainly on the landward side of coastal management, it demonstrates the many levels of government, organisations and decision making elements that contribute to the overall management of the coastal zone.

Amongst the many measures that constitute the framework for coastal management in the UK, this research focuses on one particular form of coastal management, namely Integrated Coastal Zone Management (ICZM). Within the framework of coastal management outlined in Figure 1.2 above, the relatively recent enactment of the Marine and Coastal Access Act in 2009 has prompted debate about the appropriate arrangements for the planning and the management of the UK coast (Stojanovic and Barker, 2008:347), with the role of ICZM being questioned in particular due to a number of problems which are outlined in more detail below.

ICZM has its origins in the USA's Coastal Zone Management Act, but has been more recently advocated for use by UNCED through the Agenda 21 document (UNCED, 1993) and the European Union's *Recommendation of the European Parliament and of the Council 2002/413/EC on the Implementation of Integrated Coastal Zone Management* (from herein known as *ICZM Recommendation 2002/413/EC*) which currently forms the basis for ICZM activities in the UK.

The ICZM Recommendation required that Member States first conduct a stock take of the major laws, policies, actors and institutions influencing the management of the coastal zone, and then develop a national ICZM strategy (or several strategies) based on the eight broad principles identified through a Demonstration Programme (1996-99) and outlined in *Recommendation 2002/413/EC*.

The eight ICZM principles are:

a) a broad overall perspective (thematic and geographic),
b) a long-term perspective which takes into account the precautionary principle
c) adaptive management,

d) local specificity,
e) working with natural processes and respecting the carrying capacity of ecosystems,
f) involving all the parties concerned in the management process,
g) support and involvement of relevant administrative bodies at national, regional and local level, and
h) use of a combination of instruments. (CEC, 2002)

Despite such high level support for ICZM, the implementation of ICZM in the UK has been characterised by a number of problems, which are well documented by authors such as Gubbay, (2002), McGlashan, (2002), the Local Government Association (2002), Ballinger, (1999 and 2005), Atkins (2004), McKenna and Cooper (2006) and Stojanovic and Shipman, (2007). These include:

1.2.1 Lack of statutory status

Although non-binding, the UK government adopted the EU's *ICZM Recommendation 2002/413/EC* and national ICZM strategies have been produced for each of the devolved administrations, (see Scottish Executive, 2005, Northern Ireland Department of the Environment, 2006, Welsh Assembly Government, 2007 and DEFRA, 2009). However, these national strategies, like *Recommendation 2002/413/EC*, are not legally binding and thus only provide a framework for how ICZM principles can be incorporated into existing or future measures for coastal governance, for example through harmonising the activities of different competent bodies in the coastal zone and integrating marine and terrestrial spatial planning (DEFRA 2009:14). This non-formal status also explains why ICZM strategies are absent from the framework of coastal management shown in Figure 1.2.

It is only with the introduction of the Marine and Coastal Access Act 2009 for England and Wales, and the Marine (Scotland) Act 2010 that the need to deliver ICZM has been fully acknowledged. Whilst both Acts are relatively new and the finer details of how they will be implemented are to be addressed through the publication of a joint Marine Policy Statement for the devolved administrations and the enactment of secondary legislation, the Consultation Draft Marine Policy Statement states that:

"The UK Administrations are committed to ensuring that coastal areas, and the activities taking place within them, are managed in an integrated and holistic way in line with the principles of Integrated Coastal Zone Management" (HM Government 2010:23).

However, the lack of statutory footing for ICZM to date has had several consequences for ICZM practice, which are outlined further below.

1.2.2 The voluntary approach to ICZM Implementation

Without statutory backing, the delivery of ICZM has proceeded via a number of different organisations with varying degrees of support. Taking English Nature's Estuaries Initiative, launched in 1992, and Scottish Natural Heritage's Focus on Firths project (launched 1993) as early models of an integrated approach to coastal management, estuary and Firth partnerships and coastal fora alongside other ad hoc bodies were established in response to particular local environmental issues (see Morris, 2008, CoastNet, 2003).

The voluntary manner in which coastal organisations have been established has lead to an uneven geographical spread of organisations around the UK, with a small number of organisations covering the geographically large Firths of Scotland - the original Focus on Firths initiative started with three partnerships, the Moray Firth, the Solway and Forth Estuary Forum (Allmendinger, Barker and Stead, 2002), and smaller, but more numerous groups around the English coast forming as a result of the Estuaries Initiative (over 40 estuary Partnerships and Management Plans according to Morris, 2008:25).Using "Coastal Partnerships" as a collective term for the range of voluntary coastal management organisations in existence, partnerships are generally formed from a mixture of interested parties from local government, government agencies and the private sector (Stojanovic and Barker, 08:345). Hewett and Fletcher note that although the exact remit of each partnership varies, commonly they aim to promote a more integrated approach to coastal governance through facilitating cooperation, conflict resolution, raising awareness and gathering and disseminating information to coastal stakeholders (2009:1).

Typically partnerships comprise of a partnership officer, a management or steering group, support staff and task or working groups depending upon projects being undertaken at the time. An annual Forum is also a common key activity of partnerships, functioning as a means to report to stakeholders on work the partnership has undertaken in the last year and as a means to provide opportunities to debate current coastal governance issues (see Fletcher, 2007, Stojanovic and Barker, 2008).

With no formal role in coastal governance (Fletcher, 2007), coastal partnerships rely on funding from partners, and alongside the lack of statutory powers this has been seen by many to be a key constraint to the delivery of projects (CoastNet, 2003: 3). The scarcity of funding for coastal partnerships also often leads to a rapid turnover of project officers, and the loss of "corporate memory" (McGlashan, 2002:226), which subsequently poses problems in terms of maintaining relationships with stakeholders and potential funding partners.

1.2.3 The Democratic Deficit in the Management of Coastal Resources (LGA, 2002)

Linked to the sectoral nature of coastal and marine activities and the role of central government in decision making for such activities, it has been found that there are few opportunities for public consultation and democratic accountability in coastal management (Stojanovic and Shipman, 2007:382). Whilst the national ICZM Stock Take undertaken by Atkins Consultants in 2004 noted that the participatory and locally specific nature of coastal partnerships was a relatively successful aspect of ICZM practice, the lack of opportunities to be involved in decisions of a major strategic nature means the ability of coastal partnerships to influence such decisions is restricted.

1.2.4 Data Requirements

As is stated by Midlen (2006), good information is needed to facilitate good management – this information being fundamental to understanding the pressures on the coast and potential management responses. However despite the proliferation of organisations collecting data on the environment and socio-economic issues for both landward and marine sides of the coastal zone there is no single central body responsible for the dissemination of coastal data. French (2004:117) also notes that "academia, consultants, NGOs and governments often fail to promote information exchange and development of good practice", a point which is supported by the Local Government Association's *On the Edge – the Coastal Strategy* report, which recognised that the data needs of coastal managers could be better met through closer networking between practitioners and research communities (LGA, 2002).

The description of ICZM practice given above therefore provides a great scope for investigating the ways in which ICZM implementation can be improved, and indeed much improvement may be necessary in

order for ICZM to be effectively utilised by the UK government as part of its commitment to marine stewardship and more broad sustainable development goals. Indeed, Stojanovic, Ballinger and Lalwani (2004) demonstrate how many studies have already sought to prescribe measures of "successful" ICZM practice or highlight exemplars of best practice, such as the EU's own Demonstration Programme of 35 ICZM projects (European Commission, 1999b), Pickaver, Gilbert and Breton (2004), Burbridge (1997), and Olsen, Tobey and Kerr (1997).

One aspect that has been identified as key to better ICZM is the notion of integration, which is intended to remedy the core issues of uncoordinated, sectoral based coastal management and the lack of overarching strategic plans or policies. In discussing why integration is essential to coastal zone management, Chua (1993) emphasises how integration "provides a broader cohesive perspective", which assists in the attainment of sustainable development goals (p85).

Cicin-Sain (1993) and Cicin-Sain and Knecht (1998) propose that integration is not a discrete characteristic of ICZM, rather that it can be viewed as a continuum of varying degrees of more or less integration. Along this scale, categories range from:

- Fragmented approach – which represents the least integrated, sectoral-based forms of management,
- Communication,
- Coordination,
- Harmonisation, and
- Integration – this will have a formal basis and is achieved by measures such as the creation of new institutions or redefining the roles of existing institutions.

There is an extensive discourse around the meaning of integration in ICZM, which is examined in further chapters of the thesis, but here it is pertinent to note that the work of coastal partnerships may help to achieve better communication and a degree of coordination at the local level, although "integration" as an ideal at one end of a continuum is difficult to achieve because broad-based systems of planning and management will inevitably encompass a disparate range of values and interests that in some cases cannot be reconciled. However, Rupprecht's report on the implementation of ICZM in EU Member States highlighted that "more coherent spatial planning", "improved decision making" and "better partner understanding" are major advantages in areas with ICZM and thus improve the acceptance and success of management measures taken at the coast (2006, in Lymbery, 2008:13).

According to Selin and Chavez (1995, in Randolph, 1999:171) conflicts with complex, competing interests are not well managed by strict, technocratic decision making processes and thus the contested nature of coastal resources and management approaches requires a deeper understanding of the perspectives and value judgements inherent in decision making systems. Davos (1998), recognising that sustainability policies for coastal zones are socially constructed and focused on technocratic and rationally defined "best" policies, calls for a more cooperative form of coastal management which not only seeks to uncover the origin and meaning of values in order to reduce conflict and identify "correct" policies (Davos, 1998) through public discourse, but also maximises and sustains stakeholder involvement.

This idea of discourse as a means to effect improved coastal management gives rise to a second assumption that is explored in the research; that **improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders on the nature of problems and solutions.**

This assumption is explored by reference to collaborative planning. Collaboration finds its expression in ICZM practice through UNCED's Agenda 21 document, which called for a commitment to achieving sustainable development for the marine and coastal environments, through *an integrated policy and decision making process, including all involved sectors, to promote compatibility and a balance of uses* (UNCED 1993: paragraph 17.5(a)), and in the EU's *ICZM Recommendation 2002/413/EC* ICZM principles, in particular the principles of *involving all the parties concerned in the management process,* and *support and involvement of relevant administrative bodies at national, regional and local level*.

Within the UK, participation in environmental decision making is a well established process, operating mainly through the provisions of the town and country (terrestrial) planning system in respect to proposed developments, and processes such as Sustainability Appraisal and Environmental Impact Assessment.

For coastal partnerships, as has already been stated, their core activities are concerned with facilitating cooperation and resolving conflicts, awareness raising and understanding, and information dissemination (Fletcher 2007a; Stojanovic and Barker 2008) and this work is undertaken through what is broadly described as a "partnership approach" which has its roots in the concept of governance. Governance, or the process of government, refers to the arrangements for the delivery of public policy through a combination of public, private and voluntary sectors working in collaboration (see Rhodes, 1994, and Bevir, 2009). Collaboration in this instance is defined as *occurring when a group of*

stakeholders in a problem engage in an interactive process, using shared rules, norms and structures to act or decide on issues related to that problem (based on Wood and Gray, 1991:146) and recognises that the problem encountered may be insurmountable to stakeholders or organisations working alone.

In the case of ICZM, which considers cross-cutting issues of sustainable coastal development, governance arrangements may be particularly complex as they attempt to integrate institutions, legislation, policies, plans and programmes operating at different scales. Partnership working therefore represents an attempt to build consensus around coastal issues and pool the resources of stakeholders with different interests in order to deliver mutually agreed outcomes.

Davos states that *"by involving all the stakeholders and integrating their input, co-operative CZM lays the foundations for stakeholders to build a habit of cooperation, a reputation of conforming with collective agreements, a trust that others will cooperate and an appreciation of the greater promise of cooperation over defection (the pursuit of self-interest) for coastal zone sustainability"* (1998:381).

Therefore in order to improve ICZM practice, collaborative decision making must take into account the different ways in which stakeholders construct coastal problems and how, collectively, building mutual agreement and trust can facilitate greater cooperation and integration. With this in mind, the following aim and research objectives have been devised.

1.3 Research Aim and Objectives

The overall aim of this research is:

To critically assess the implementation of ICZM in the wider context of coastal planning regimes, in order to develop a more effective model of collaboration for coastal governance.

In order to meet this research aim, the following objectives will be used to structure the research undertaken in this thesis:

Objectives

1. To critically assess the practice of Integrated Coastal Zone Management in the UK and place this in the context of other current planning and management regimes for the coastal and marine environment.

2. To explain the emergence of coastal planning regimes in terms of the social construction of a "coastal problem" in order to understand the different policy responses that may occur.

3. To develop an understanding of how integration may be facilitated by collaboration between stakeholders in coastal organisations.

4. To determine what factors are most important in practice for constructing claims about a coastal problem, and provide a reappraisal of the social construction model proposed by John Hannigan.

5. To evaluate how collaboration is embedded within the plan making processes of coastal organisations and provide recommendations as to how collaborative policy making may be improved.

Meeting each of these objectives in turn, the research will build on the findings of each of the previous chapters, enabling a final set of conclusions and recommendations to be drawn and fulfilling the overall research aim.

1.4 Research Strategy and Thesis Structure

The aim and objectives outlined above have assisted in designing a research strategy that structures the thesis into conceptual, contextual, theoretical and analytical components which are explained below.

In the **conceptual and contextual** component of the thesis, the research problem (the implementation of ICZM) is identified and set against a conceptual framework of socially constructed environmental problems and policy responses. This is then examined in more depth through the first stage of empirical work - a comparative study examining the social construction of coastal, marine and water catchment problems through a desktop study of associated literature.

The theories examined in this contextual and conceptual phase meet Objectives 1, 2 and 3 and inform the development of further research questions and the **theoretical framework** and methodology that is to be used in the second empirical stage of the research. The second phase of empirical work utilises a case study approach, which allows for phenomena to be investigated in a highly contextualised setting (Yin, 2003). Furthermore, Denzin and Lincoln (2003) note that case study is a typical narrative form for enquiry founded on an interpretive paradigm such as social construction.

The **analysis** stage of the thesis brings together the findings of the second phase of empirical work with the theoretical framework in order to answer the research questions and provide an overall evaluation of the collaborative policy making process in coastal planning regimes. This analysis meets Objectives 4 and 5.

1.5 Overview of Thesis Structure

The thesis structure is shown in Figure 1.3, which indicates how each chapter relates to the conceptual, theoretical, empirical and analytical stages of the research and the overall research objectives.

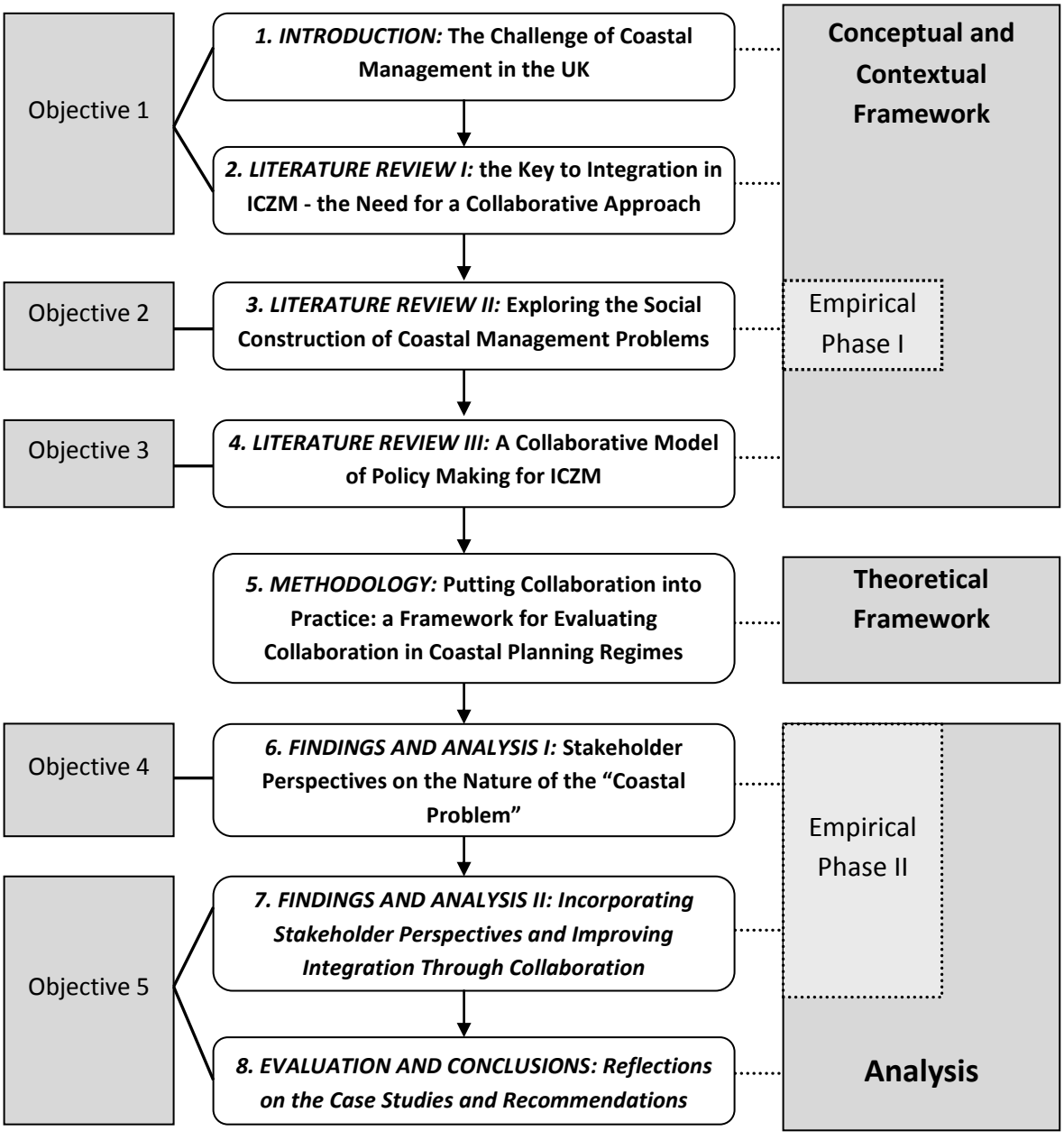
Chapter 1 introduces the research problem, that is, the implementation of ICZM in the context of socially constructed environmental problems and the need for integrated, collaborative approaches to the governance of coastal zones. This initial conceptualisation sets the scene for a discussion of the overall research aim, objectives and methodology to be followed in the study.

Based on the assumption that improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders on the nature of problems and solutions, **Chapter 2** considers first the different types of integration that can or should be achieved by ICZM, and secondly the role of collaboration in the current context of coastal management. Literature on collaborative or communicative planning is reviewed to provide the theoretical underpinnings of the partnership approach that characterises ICZM practice. Collaborative or communicative planning seeks to uncover the meanings and values behind socially constructed policy discourse and as such places the focus of the research on the substantive content of environmental decisions rather than the achievement of coastal management goals.

In **Chapter 3**, the problems of the coast and the way they are socially constructed are then discussed with reference to John Hannigan's (1995) model of the social construction of an environmental problem. A comparative study is undertaken of the social construction of coastal, marine and catchment (river basin management) problems in order to ascertain how the social construction of a problem may then influence different policy responses. Marine and catchment problems have been chosen for comparison because their jurisdictions overlap in the coastal zone, and ICZM, Marine Planning and RBMP represent planning regimes that are directly or indirectly influenced by European policies and have broad sustainability and integration objectives at their core. As well as providing insights into the historical development of coastal, marine and catchment planning regimes, an analysis of the utility of Hannigan's model raises further questions about the way environmental problems are elevated from the status of a problem requiring attention to an item firmly on the political agenda where solutions may then be proposed and implemented.

Conceptualising collaborative planning as a continual process of constructing an environmental problem, **Chapter 4** considers how an environmental problem, initially defined, then progresses through the stages of the policy making cycle. Based on the work of Barbara Gray (1985, andWood and Gray, 1991) and Richard Jarvis (2007), conditions which facilitate inter-organisational collaboration are overlaid on the policy cycle to produce a model of collaborative policy making which provides a theoretical framework for understanding how stakeholders in coastal planning regimes may work in a more integrated way.

Figure 1.3: Summary of Thesis Structure



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The application of this framework is elaborated in **Chapter 5,** which details the methodology developed for the main phase of empirical work. This shows how the proposals made in relation to collaboration may be used as a benchmark for assessing the extent to which collaboration is achieved in current coastal planning regimes against a set of normative propositions. A case study approach to testing this framework is then developed, with case studies selected from a desktop study of coastal organisations

around the UK. The chapter then describes how five case studies have been investigated, using questionnaires and semi-structured interviews with case study stakeholders to collect data.

The next two chapters present and analyse the second phase empirical data, and are broken down into intermediate stages of analysis relating to the main themes of the theoretical framework. **Chapter 6** first provides further context for each of the individual case studies which are drawn from Marine Planning, River Basin Management and three from ICZM. It then concentrates on the way in which stakeholders socially construct environmental problems in the initial problem recognition phase of the policy cycle and presents evidence to demonstrate the ways in which the prerequisites proposed by John Hannigan (1995) as necessary for the social construction of environmental problems can be more nuanced than is suggested, and thus not only can the model for the social construction of an environmental problem be expanded, different factors can be seen to be more decisive in constructing the case for coastal, marine and catchment problems.

The second findings chapter, **Chapter 7**, then examines the case studies as they advance through the remaining stages of the policy making cycle, describing and analysing the processes of consensus building, exploring options, decision making and implementation for each of the case studies. This chapter therefore provides some insights into the collaborative planning processes taking place within each case study and in particular reveals some important differences in the stages of consensus building and decision making under top-down and bottom-up regimes.

Chapter 8 brings together the final conclusions of the research, considering the findings in the light of the social construction model proposed by John Hannigan and the collaborative policy making framework. In addition to conclusions on the way in which coastal problems are socially constructed and how this has affected the implementation of coastal planning regimes, comments are made on the extent to which features of the collaborative policy making framework are reflected in practice. The implications of these findings are considered in relation not only to ICZM, but also the processes of Marine Planning and River Basin Management, and recommendations are made on how support for such regimes may be built through working towards a shared construction of problems. Working in this way should facilitate better integration of organisations, policies and programmes as decision makers are able to share information and negotiate more effectively on courses of action to be taken.

Finally, an evaluation of the methodology, including the theoretical framework and more practical matters relating to the empirical research such as access to participants are discussed, and some further

avenues for investigating collaborative approaches to ICZM and other coastal planning regimes are suggested.

1.6 A Note on Terminology

Coastal Management, CZM, ICAM, ICM and ICZM

In the wide range of coastal management literature, the planning and management of coastal activities are referred to variously as coastal zone management (CZM), integrated coastal management (ICM), integrated coastal area management (ICAM) and integrated coastal zone management (ICZM). These terms are used somewhat interchangeably. The terms ***coastal management*** and ***ICZM*** shall be used here – *coastal management* will be used in referring to the general mix of regulations, plans, policies and institutions that make up coastal management in its broadest sense, and ICZM when referring specifically to the form of coastal management advocated by the European Union and the Department of the Environment, Food and Rural Affairs in England, unless quoting directly from another source.

Marine Planning (MP) and Marine Spatial Planning (MSP)

When work first began on this PhD thesis, consultations on a proposed Marine Bill for the UK were in progress, with proposed legislation including the introduction of a system of Marine Spatial Planning (MSP). When the Marine Bill gained Royal Assent in 2009 as the Marine and Coastal Access Act, the terminology became marine planning. Marine Planning is thus used throughout unless specifically referring to documents and discussions of marine spatial planning prior to Royal Assent.

CHAPTER 2: the Key to Integration in ICZM - the Need for a Collaborative Approach

2.1 Introduction

This chapter builds on the context of ICZM outlined in Chapter One, presenting further background to the evolution of ICZM practice in the UK which contributes to Objective One of the thesis, that is *to critically assess the practice Integrated Coastal Zone Management in the UK and place this in the context of current planning and management regimes for the coastal and marine environment.* The literature reviewed in this Chapter also outlines the theories that inform a more detailed investigation of the socially constructed nature of coastal policies and collaborative responses.

The literature examined here focuses on the policy documents at international and national levels that provide the key drivers for ICZM, plus academic literature and reports which review how practice has developed from those initial policy drivers and more theoretical perspectives.

The chapter starts with a dissection of the term "management" and what this means in theory for the type of activities undertaken as part of coastal management. This includes the collective process of learning through interaction which contributes to adaptive management of coastal zones.

Different dimensions of "Integration" are then considered, such as institutional, policy, sectoral and spatial integration. Given the first assumption that *the definition of an environmental problem, and the formulation and implementation of a solution, is the product of a process of social construction, s*patial integration is given special consideration in terms of socially constructed notions of the coastal zone. These dimensions are critically examined with reference to practical examples of the type of integration under discussion.

Given the second assumption, that *improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders on the nature of problems and solutions,*
attention then turns to the concept of communicative or collaborative planning. Characterised as a highly participatory activity, the discussion of communicative planning seeks to find ways in which the socially constructed nature of coastal management may be understood through uncovering the understandings and values held by coastal stakeholders.

This communicative approach is applied to coastal partnerships in describing the rationale for collaboration or partnership working, which includes overcoming the lack of coordination between relevant administrative bodies and increasing stakeholder involvement in formulating and implementing solutions to coastal problems (CEC, 2000:8). Based on the principles of communicative action, a process in which the co-production of knowledge and consensus building on appropriate courses of action can provide more integrated measures to ameliorate coastal problems.

2.2 Context: On the Meaning of Management

As the central object of research in this thesis is ICZM, it is constructive at the beginning of this literature review to provide some further context on the theories which constitute the purpose and activities of ICZM. To this end, the chapter starts with further elaboration on the meaning of management, which was variously defined in the introductory chapter as "a process of governance", the operational (day to day) and strategic direction of activities, or a complex system of measures and tools used for decision making.

This discussion is then followed by an examination of integration, which is the subject of management actions. An understanding of the different types of integration that may be possible in ICZM thus provides a benchmark for assessing the extent of integration already existing in coastal planning regimes and the ways in which this might be improved.

2.2.1 Management

In the first chapter, some basic definitions of management were given (e.g. Ehler and Basta, 1993, Post and Lundin,1996) which characterised coastal management as a system and a means of regulating decision making and activities, either in the short or long term. Coastal management also embraces the need for environmental stewardship (compliance with national and international environmental legislation and promoting sustainable development), shared responsibility (operating in a multi-sectoral framework), the precautionary principle and public information (Ballinger, 2002).

Management should provide for assessing changing conditions in order to adjust management strategies (Ehler and Basta, 1993:10) and give continuous feedback on how ICZM programs are progressing towards desired goals, and thus an ICZM programme can be seen as an aggregation of

various cyclical processes such as planning and implementation (implementation is discussed in more detail in later chapters), and management actions.

Scura *et al* (1992:38) define three types of management actions associated with the production of a Coastal Zone Management Plan, which are:

1. Institutional and organisational arrangements
2. Public intervention to influence private behaviour, e.g. imposition of taxes and levies
3. Direct government intervention or investment

In keeping with Kay and Alder's (2005) distinction between strategic and operational management, it can be seen that these types of management action are broadly strategic in that they seek to influence the overall shape and direction of the management system, for example creating the optimum organisational structures for policy design, ensuring there is sufficient political will from public, private and third sector organisations to deliver plans and also, in the case of direct government involvement, providing resources (financial/human) for ICZM programmes, or ensuring that legal requirements are enforced. Management actions that may correspond to the "operational" include decision making tools such as EIA, cost benefit analysis, participatory planning and sectoral or site specific plans, which are implemented at lower levels in the institutional hierarchy.

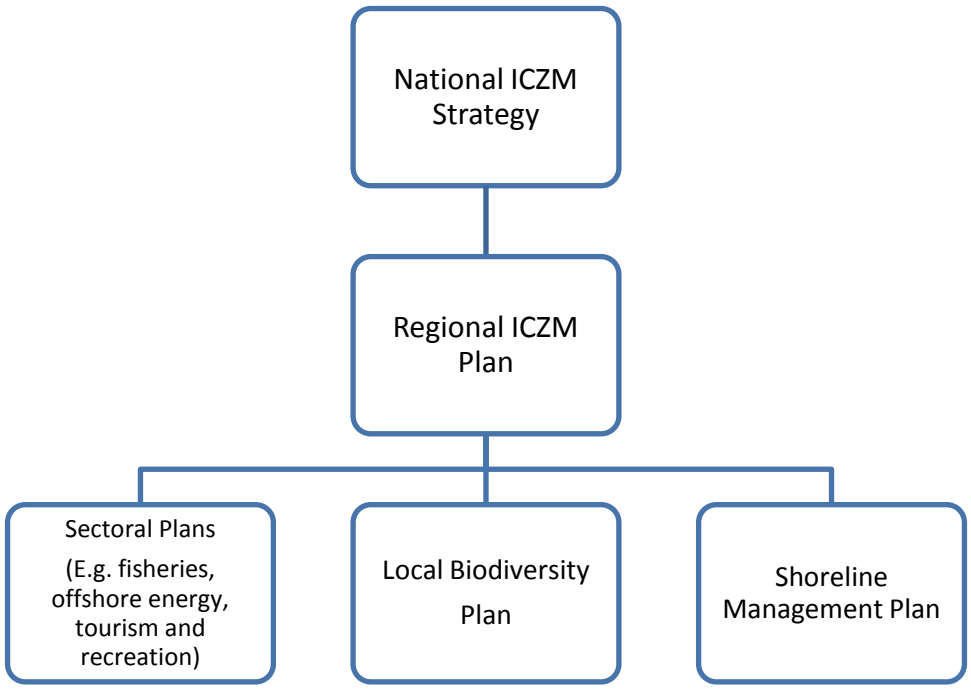
In 1992 House of Commons Environment Select Committee Report on Coastal Zone Protection and Planning recommended that there should be a hierarchy of Coastal Zone Management Plans from national to regional and local levels, and that the government should consider establishing regional Coastal Zone Management Groups, however these recommendations were rejected. Therefore ICZM practice to date in the UK, with limited formal support from the government, has had only partial success in terms of institutional and organisational arrangements, namely the creation of coastal partnerships and their networks of stakeholders through participatory planning mechanisms such as annual fora. With no statutory weight behind partnerships, public intervention to influence private behaviour has come mainly from other sectoral legislation, for example related to spatial planning and development control, EU Directives on bathing water, birds and habitats.

Planning constitutes another of the key management components as this prescribes the aims or goals to be achieved, the means or actions that must be taken and also facilitates the monitoring and evaluation of progress. Kay and Alder point out that like management, planning has both strategic and operational

dimensions, thus a strategic ICZM plan which sets the overall direction for a coastal program may in turn cascade into operational plans and management actions (2005:77), in a tiered hierarchy as can be shown below in Figure 2.1.

In this case, the example regional ICZM plan provides the strategic vision for management actions in the coastal zone, such as outlining priorities for the protection of flora and fauna, with more specific measures being elaborated in a biodiversity action plan, or identifying areas with potential for further sectoral development, e.g. tourism or renewable energy technologies.

Figure 2.1: Example of a tiered coastal management planning hierarchy



Source: Author

In the UK, a tiered system such as this has been absent, with national ICZM strategies for the devolved administrations not being put into place until after local and sectoral plans such as SMPs, now obsolete Local Environment Action Plans (LEAPs) and Biodiversity Action Plans had been produced and many sub-regional and local coastal partnerships had established their own programmes of work, for example the Solent Forum's *Strategic Guidance* (1997), and the *East Riding ICZM Management Plan* (2002). The creation of Marine Planning regions under the Marine and Coastal Access Act may provide this missing part of the hierarchy, but in coming after the range of local level plans already in existence, the harmonisation of plans and policies may take some time to achieve.

2.2.2 Adaptive Management

ICZM may also utilise what is described as adaptive management, which is one of the EU's key principles, set out in*ICZM Recommendation 2002/413/EC*. The *Recommendation* states that ICZM should be based on

> *"(c) adaptive management during a gradual process which will facilitate adjustment as problems and knowledge develop. This implies that need for a sound scientific basis concerning the evolution of the coastal zone"* (CEC, 2002).

When management is considered as an adaptive process therefore, it is intended to mean more than the process of monitoring, evaluation and corrective action – it involves learning from experience, experimentation and the formulation of new management methods as new knowledge becomes available, whether this is about the physical environment of the coast itself or resulting from an iterative approach to policy design and implementation. Olsen (2001) notes that adaptive management also means "actions can and should be taken in the face of uncertainty" (2001:329), however, regard must be given to the precautionary principle (which is included in *Recommendation 2002/413/EC* as part of the ICZM principle of a long term perspective), and thus the burden of proof faced by decision makers wishing to proceed with incomplete knowledge about the consequences of their actions. In these situations, Tol *et al* (1996) observe that by postponing decisions "more insight into the aims of actions can be achieved and better instruments and techniques will be developed" i.e. greater learning can take place, but even without action mitigating measures may come too late to assist in achieving goals (1996:50) and so value judgements are needed to prescribe a course of action. The adaptive management approach bears similarities to the 'double loop' model of organisational learning proposed by Argyris and Schön (1974), which "involves questioning the role of the framing and learning systems which underlie actual goals and strategies" (Usher and Bryant, 1989:87), in contrast to the 'single loop' model which merely allows for learning through the detection of error (feedback) and corrective action.

In order for such learning and adaptation to take place, a move away from the notion of "best" coastal management towards a more cooperative system in which stakeholders can reflect and deliberate upon appropriate coastal management measures is desirable. The second assumption of the research, that *improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders on the nature of problems and solutions* thus encompasses the idea that through discussion, stakeholders not only learn about the perspectives of other stakeholders, but collectively

they begin to develop shared understandings and experiences of coastal problems and more appropriate, consensual solutions.

The next section outlines the different dimensions of integration which may be achieved by, or conversely facilitated by discourse amongst stakeholders.

2.3 On the Meaning of Integration

The types of management actions that occur under ICZM are not exclusive to coastal management – they may be implemented under an array of environmental management and land use or spatial planning programs. However, what does set them apart from other types of environmental management actions is the degree of integration that is required to enable a functioning, multi-sectoral management system. Tracing the history of ICZM, early attempts at coastal zone management for example in the USA were simply termed "Coastal Zone Management". It was not until the 1980s that integration became recognised as an explicit feature of coastal zone management and became established as a key characteristic of coastal programs.

Kenchington and Crawford differentiate integration from coordination, explaining that a coordinated system is comprised of independent, generally equivalent components working to a common purpose, whereas an integrated system is complete or unified although it will generally have subordinate components (1993:111-12). This more accurately reflects the political context within which ICZM occurs – that is, the hierarchy of central-local government and strategic policies – area/sectoral plans.

The same authors also note that the term "integration" had been part of coastal management discourse since the launch of the United Nation's Regional Seas Programme in 1975, but at that early stage its use was ambiguous. Increasingly it became used to describe the more complex systems of coastal area management that were being developed.

The way in which ICZM differs from the earlier form of coastal zone management is described in a simple way by Post and Lundin, who explain that ICZM attempts a more comprehensive approach – taking account of all the sectoral activities that affect the coastal zone and its resources and dealing with economic and social issues as well as environmental/ecological concerns (1996:1).

However, this explanation of ICZM does not adequately describe the ways in which integration can or ought to occur. For this we need to consider not only the range of activities or agents of ICZM but also the wider sustainable development agenda.

It was the UN Stockholm Declaration of 1972 that first called for integrated resource management in development planning (Kenchington and Crawford, 1993) and as sustainable development has become the dominant paradigm of economic development and global governance regimes one interpretation of integration refers to the conceptual merger of environment and development (Nichols, 99:393), whereby the twin (and sometimes contradictory) objectives of achieving economic prosperity and the conservation of natural resources are achieved.

In 1992, against the backdrop of the Intergovernmental Panel on Climate Change (IPCC) and the UN Conference on Environment and Development (UNCED) at Rio, integration was again given prominence as ICZM was endorsed by IPCC as "the appropriate framework […] to reduce vulnerability to accelerated sea level rise" (Cicin-Sain and Knecht, 1998:36).

More importantly, Chapter 17 of the Agenda 21 document agreed at UNCED made a strong commitment to achieving sustainable development for the marine and coastal environments, stating that:

> "This requires new approaches to marine and coastal area management and development, at the national, sub-regional, regional and global levels, approaches that are integrated and are precautionary and anticipatory in ambit" (UNCED, 1993).

Furthermore, Programme Area A for Integrated Management and Sustainable Development of Coastal and Marine Areas, Including Exclusive Economic Zones, called on states to:

- Provide for an integrated policy and decision making process, including all involved sectors, to promote compatibility and a balance of uses (paragraph 17.5(a)).

And for:

- Integration of sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries affecting the coastal area (paragraph 17.6(i)).

These requirements promote two forms of integration, namely ***institutional*** and ***sectoral*** integration.

Institutional integration can take the form of a number of measures, and Underdahl lists these as first, redefining the domain of existing institutions - transferring issues both vertically, towards central government to provide a more strategic overview, and horizontally, to broaden the remit of what may be more narrowly focused, sector-based organisations (Underdahl, 1980:167). Brown *et al* also describe horizontal integration as the cross-sectoral harmonisation of policy and practice or joined-up decision making, whilst vertical integration concerns different scales of governance, from local to international (Brown *et al,* 2002:21). The transfer of sectoral marine controls for aggregates, fisheries and offshore renewable energy to the Marine Management Organisation under the Marine and Coastal Access Act represents one such example of horizontal integration and the broadening of perspectives.

A second institutional strategy is to change decision-making procedures, for example using more inclusive and participatory approaches such as environmental impact assessment (EIA), public hearings and joint proposals. This may be particularly useful in the case of voluntary partnerships where the partnership as a whole, does not, according to McKenna *et al* mesh effectively with external organisations, lying "outside the loops" of power and influence of statutory bodies with decision making powers (McKenna *et* al,2008:945). Giving partnerships a greater role in, for example, consultations on Marine Plans could therefore facilitate greater institutional integration.

Third, the redistribution of resources or authority between institutions could increase capacity or create subordinate institutions to another with a stronger leadership. The final method of institutional integration suggested by Underdahl is the creation of a new institution, either through merger of existing institutions, or creating a new lead institution with overall responsibility that can coordinate the work of others. Again, the creation of the Marine Management Organisation provides an example of how this may occur.

The second form of integration, *sectoral* integration, can occur across economic sectors, as identified by Ehler and Basta (1993), for example recreation and energy, across economic and environmental sectors (e.g. energy and marine mammal protection), or between coastal and marine sectors and other land-based sectors such as agriculture (Cicin-Sain, 1993:25).

Other forms of integration can include ***spatial*** and ***temporal*** dimensions, covering the landward and the marine sides of the coastal zone. The concept of the coastal zone as a unique environment forms a substantial body of discourse within coastal management literature. Traditionally the coast has been thought of as a frontier where the land meets the sea, although Alder and Kay (2005:1) observe that this

boundary is generally not a clearly defined line on a map but rather a transitional zone. It is for this reason that the coastal zone is commonly referred to as "the interface between land and sea" (see for example Cicin-Sain, 1998, Post and Lundin, 1996, Chua, 1993).

Alder and Kay (2005) propose two main methods of defining the coastal zone. These are in terms of policy-oriented definitions which focus on designated areas and are politically determined, and the biophysical, where there are interactions between the land and sea.

2.3.1 Policy Oriented Definitions of the Coastal Zone

The evolution of policy-oriented or political definitions of the coastal zone - which may take the form of fixed or variable distance definitions, definitions according to usage (e.g. economic sectors, protected areas and settlements) or hybrid definitions - can be traced back to the maritime activities of the Seventeenth Century, when the "Cannon-shot rule" developed by Cornelius Bykershoek was used to extend national territory out over the three nautical mile belt of sea around the coast (Nichols, 1999). Yet it was not until after World War II as nations began to assert their economic rights over adjacent seas that a new, more formalised system of national jurisdiction and responsibilities for the sea was developed.

The Convention on the Laws of the Sea (UNCLOS) was agreed and came into force after being ratified by 60 states in 1982, following three Law of the Sea conferences hosted by the United Nations. UNCLOS was highly significant in that it provided a new "constitution" for the world's oceans (Cicin-Sain and Knecht, 1998:69) or a framework for ocean governance covering all aspects of maritime activity.

Central to this was the establishment and acceptance of maritime zones measured from a carefully defined baseline at mean low water mark and including:

- Internal waters (on the landward side of the baseline),
- Territorial waters – now extending sovereign territory out to 12 Nautical miles and "often the domain of coastal planners" (Nichols, 99:390),
- The Contiguous zone (extending from 12 to 24 Nm), in which nations can exert limited legal powers,
- Exclusive Economic Zones (extending out to a maximum of 200Nm), for which nations have sole control over economic resources such as fishing and oil exploration, and

- Archipelagic waters (boundaries around islands) and the continental shelf (the natural extension of a territory along the underwater continental land mass).

Whilst these definitions are widely accepted in the global marine management regime, within individual nation states the exact nature of the coastal zone is still subject to administrative and sectoral requirements. Cicin-Sain relates sections of the coastal zone through a political economy dimension to a continuum of private-public property and associated governance, whereby in inland areas private property ownership tends to dominate, coastal lands contain a mix of public and private, and in coastal waters or the high seas public ownership and concerns are dominant. In parallel with this, local/provincial government interests and multi-purpose agencies predominate in inland areas, with national and international concerns and single-purpose agencies, for example for shipping or conservation taking greater importance further out to sea (1993:27). This relationship is presented in Figure 2.2 below.

Figure 2.2: Nature of Property and Government Interests and Institutions in Coastal/Ocean Areas

<table>
<tr><td></td><td colspan="5">Coastal ocean spectrum</td></tr>
<tr><td></td><td>Inland areas</td><td>Coastal lands</td><td>Coastal waters</td><td>Offshore waters</td><td>High seas</td></tr>
<tr><td>Nature of Property</td><td>Private</td><td>Private/public</td><td colspan="3">Predominantly public</td></tr>
<tr><td>Nature of government interests</td><td>Local/provincial</td><td colspan="2">Mix of local/provincial/ national</td><td>Mainly national</td><td>Mainly international</td></tr>
<tr><td>Nature of government</td><td colspan="2">Multi-purpose agencies</td><td colspan="3">Single-purpose agencies</td></tr>
</table>

Source: Cicin-Sain (1993:28)

In the UK, the delineation of the coastal zone is complicated further by the historic legacy of the Crown (Gibson, 1993) which owns approximately half of the intertidal strip of land known as the foreshore

around the UK. The Crown Estate also owns the seabed out to the limits of territorial waters, and inland up to mean low water mark. These boundaries were originally devised to demarcate property and were re-enacted in the Local Government Act of 1972, without taking into account the needs of coastal zone management (Gibson, 1993:120).

In 1992, a *House of Commons Select committee on Coastal Zone Protection and Planning* reported that although there was widespread support for the treatment of the coastal zone as one integrated unit comprised of land and sea elements, the management of these two environments formed two distinct activities or areas of jurisdiction.

The Committee found that:

> "The division between the planning control system at sea and on land may be regarded as forming the root of many of the problems with current coastal protection and planning policies… Harmonising the planning systems of below and above the low water mark seems to us to be the basic requisite for an integrated approach to planning in the coastal zone" (1992:30)

Thus a recommendation was made to harmonise landward planning control and seaward planning control as far as the 12 Nautical Mile limit of territorial waters. However this was not enacted, and thus the cessation of local authority planning controls at mean low water mark remains the norm in England[2] (see *PPG 20: the Coast*), although PPG 20 also states that "Local planning authorities will need to consider how best to define the coastal zone for their areas… based on local circumstances and the key coast-related planning issues to be covered in their planning policies" (1992:5). Up until the enactment of the Marine and Coastal Access Act in 2009, sectoral agencies controlled activities further out at sea, such as aggregate extraction, however much of this sectoral legislation has now been brought under the auspices of the Marine Management Organisation which is responsible for most marine planning and management activity in England, whilst the Welsh Assembly Government and Marine Scotland will undertake marine management duties for the devolved administrations. .

[2] In Scotland under the Town and Country Planning (Scotland) Act 1997, terrestrial planning controls extend to the mean low water mark and marine fish farming.

2.3.2 Biophysical Definitions of the Coastal Zone

Addressing the biophysical perspective, Alder and Kay (2005) acknowledge the link between water catchments that may be far inland but that have an influence on estuaries and coasts, citing Ketchum's (1972) definition of the coastal zone as

> "the band of dry land and adjacent ocean space (water and submerged land) in which terrestrial processes and land uses directly affect oceanic processes and uses, and vice versa" (in Alder and Kay, 2005:2)

Perhaps the most important biophysical perspective for defining the spatial unit to be the subject of coastal management is the ecosystem approach, which may be applied to both marine and coastal environments. Ecosystems represent functional units of interacting biotic and abiotic components that operate as dynamic, open systems. Where the ecosystems approach is operationalised for coastal management purposes, it is described as

> "The integrated management of human activities based on knowledge of ecosystem dynamics to achieve sustainable use of ecosystem goods and services, and maintenance of ecosystem integrity" (ICES, 2000).

Post and Lundin (1996:3) point to the wide variations between national definitions of the coastal zone and the arbitrary nature or convenience with which the coastal zone is placed within jurisdictional limits. This could potentially lead to a mismatch between ecosystems and administrative boundaries (e.g. government regions) and inadequate recognition given to the true scale of the interrelated components that make up a particular coastal or marine ecosystem.

It should be noted that although shoreline management planning, river basin management planning, Marine Planning and ICZM are all in theory applied to ecosystems, these forms of planning and management are operationalised within the parameters of predefined administrative areas. In the case of shoreline management, Coastal Groups are based on sediment cells, but responsibility for planning lies with the adjacent local planning authorities. For river basin management, Basin Management Plans are produced for a number of specifically delineated River Basin Management Districts. The ICES definition of the ecosystems approach outlined above underpins the UK government's approach to marine stewardship as outlined in *Safeguarding Our Seas: a Strategy for the Conservation and Sustainable Development of Our Marine Environment* (DEFRA, 2002) and takes a broader strategic

perspective than traditional coastal management boundaries, including both water catchment and high seas influences on the coastal zone.

Although the eight ICZM principles set out by the EU in *Recommendation 2002/413/EC concerning the implementation of ICZM in Europe* are based on the ecosystem approach set out in the Community's Sixth Environmental Action Programme, experience in the UK of implementing non-statutory ICZM has to date been based on a weak interpretation of the coastal zone that does not give sufficient consideration to the marine aspect of the coastal environment (Gubbay, 2002). Therefore much coastal management/ICZM activity in the UK has focused on the land and as such is subsumed within the framework of terrestrial spatial planning. The lack of integration between offshore, coastal and terrestrial environments has been identified as a shortcoming of the current ICZM regime in the UK, though this has mainly been due to the lack of coordination between the bodies responsible for activities in each zone (DEFRA 2007b:9).

Referring to Figure 1.1 in the previous chapter which outlines the jurisdictions of government bodies in England in the coastal and marine environment, it can be seen that the extent of the MMO's jurisdiction for Marine Planning overlaps with Local Planning Authorities' jurisdiction for terrestrial spatial planning between High and Low Water. This should facilitate some integration between marine and terrestrial planning, and according to the recently issued Draft Marine Policy Statement this will be achieved by ensuring consistency between marine and terrestrial planning policies and documents, liaison between respective responsible authorities, a shared evidence base and adopting the principles of ICZM (HM Government, 2010:23). However it could be questioned whether this approach to issues of overlap of is really sufficient to encourage spatial integration, and how this works in practice may not be known for several years.

Integration in the ***temporal*** dimension can refer to the seasonal changes which occur in the physical environment, and also the integration of planning cycles with evolving ecosystems, as identified by Olsen (2001), who cites the mismatch between cycles of governance and cycles of coastal ecosystem change Rather than standing in isolation from natural processes, Olsen notes that governance efforts at an intermediate time scale between short term governance initiatives and longer term periods over which environmental change are evaluated (two to four decades) have been crucially important for areas such as the Great Lakes and the Netherlands (2001:334). Spatial and temporal integration, therefore, have a strong ecological component and as such may also form part of an ecosystem approach to ICZM.

Integration ***across disciplines*** is also important – a 1996 GESAMP report cited in its definition of ICZM that it "unites government and the community, science and management, sectoral and public interests", and on a more abstract level, the contested nature of the coastal resource and management approaches require a deeper understanding of the perspectives and value judgements inherent in decision making systems. Visser (2004) exemplifies this, citing Osseweijer (1999) and Van Helden (2001):

> *"The implementation of an integrated approach to the sustainable development of a marine park area… shows that conflicts can be generated that appear to be about practicalities but in fact result from the different epistemological histories of marine biology and anthropology. The conceptual differences about the size of a territory become in practice almost a kind of ideological conflict between the biologists and the anthropologists involved in the establishment of a marine park"* (2004:29).

The integration of ***policy*** is probably the most important form of integration as it can either constitute an ultimate goal of ICZM to be worked towards, or it can precipitate other forms of integration, such as the sectoral or institutional. Underdahl (1980) specifies three criteria which must be met for policy integration to occur. These are:

1. Comprehensiveness – recognising the consequences of policy integration as a premise for decision making, using all the information available at the time.

2. Aggregation – the ability to evaluate policy alternatives from an overall perspective rather than by sectors or individuals. This requires the weighing of interests and setting priorities, which may become more difficult to develop as the scope of public policy broadens and more actors are involved.

3. Consistency - this is achieved when there is conformity in policy through vertical dimensions (central to local government) and horizontal (all agencies working towards the same goal, e.g. local authorities).

Whilst various types of integration are identified and characterised here, the point made in Chapter One by Cicin-Sain (1993) and Cicin-Sain and Knecht (1998) that integration is not a discrete characteristic of ICZM, but rather a continuum, must be kept in mind. This is particularly pertinent when integration is

interpreted to include an element of comprehensiveness by some authors (e.g. Underdahl, 1980), or implies it in some way (e.g. Chua, 1993).

Comprehensiveness cannot be satisfied through technical-rational approaches such as SEA/EIA, or Cost Benefit Analysis because there is rarely complete information and understanding of all possible alternatives in rational comprehensive systems of planning (Kay and Alder, 2005:58). However a more pragmatic approach such as the "disjointed incrementalism" approach to policy analysis suggested by Charles Lindblom (1977) which focuses on the remedying of day to day issues and the limitation of analysis to a few familiar alternatives (Allmendinger, 2002:127) may also have its shortcomings, lacking the long term perspective needed for sustainable development.

Lang (1990) goes as far as to say that

> "The call for integration implicitly criticises the narrowly-based, incremental, opportunistic style of decision making when it says in effect: 'Let's take a broader view, bring in more factors and interests into the planning process… and do all this in a way that works'" (in Kenchington and Crawford, 1993:115)

Therefore Kenchington and Crawford call for "an approach which provides a comprehensive framework for management strategy but maximises the tactical capacity within the strategy so that management has the flexibility to respond to changing circumstances" (1993:116).

This would allow for a more adaptive, discretionary system of management that maintains overall strategic direction but is able to respond rapidly to changes (political, economic, in scientific knowledge or the natural environment) and subsume these changes into the operational workings of the management system, ensuring continued integration.

2.4 The Critique of Rational Planning and the Communicative Turn

In the previous section, as part of the discussion of the different dimensions of integration, reference was made by Kay and Alder (2005) to the failure of technical-rational management tools and comprehensiveness as a means of promoting further integration. Such remarks parallel those made by Davos (1998) in Chapter One regarding the concept of "best" policies for coastal sustainability, thus pointing to the need for a different type of integration that eschews both comprehensiveness (as a

technical-rational "ideal") and the pragmatic, short term approach in favour of a more deliberative process. In land use planning, rationality has been challenged by the communicative or collaborative approach, based on the theories of Habermas (1984) and Foucault (1972), and applied to planning processes by Healey (1992, 1997, and 2006), Forester (1989) and others. Both rationality and communicative rationality are now considered below.

2.4.1 The Rational Approach

In the early Post-War period, the rational paradigm was seen as the dominant approach to decision making in public policy and policy analysis. In essence, rationality is concerned with problem solving and the maximisation of welfare (Innes, 1995) or "is a way of choosing the best means to attain a given end" (Alexander, 1986) and involves "the clarification of policy goals, systematic analysis, logical generation of policy alternatives, systematic evaluation of these alternatives and monitoring performance" (Healey *et al,* 1982:8).

Rationality in policy decision making has its origins in the work of Max Weber and Karl Mannheim, who advocated an "ideal type" bureaucracy in which facts and values should be separated, and where decision makers should concentrate on what Weber termed formal or functional rationality, that is, concerned with means and efficiency (Allmendinger 2002:54). Friedmann notes how Weber maintained that value judgements were the *"result of culture, tradition, social position and personal preference, and they had no place in scientific discourse"*, thus acknowledging that the goals of any policy were based on social constructions of reality (1987, in Allmendinger, 2009:64).

The choice of ends in relation to individual or organisational values using the same neutral approach is termed substantive or value rationality (Kay and Alder, 2005:58). Bureaucrats were, in the traditions of the physical sciences and positivist thought, to remain objective, prescribing the best course of action based on an analysis of all the options and likely outcomes set before them, whilst ends and objectives or goals belonged in the political realm.

Davos , noting firstly that continued calls for ICZM by bodies such as the World Coast Conference reiterate ends whilst failing to suggest means and justify their choice (1998:379) and secondly that the environmental conditions of coastal zones have not improved despite attempts at implementing ICZM, contends that the continuing problems faced in coastal management "reflects subscription to the

positivist principle that expert-based rational analysis... suffices to determine the 'best' policy and management decisions" (1998:380, citing Portney, 1991).

These comments reflect a more broadly understood argument that the scientific approach to decision making is not without its limitations. Innes (1995) notes that policy analysts such as Herbert Simon (1945, 1955), Braybrooke and Lindblom (1963) and Rittel and Webber (1973) "came up against the dilemmas inherent in instrumental rationality". Low points out that the requirements of formal and substantive rationality are fundamentally in conflict, as any attempt to produce social change involved the distribution of power and engagement with violence or coercion. The more people strive to achieve higher substantive goals, the greater the need for formally rational mechanisms such as the market or bureaucracy which limit the possibility of other values such as freedom and democracy being attained (1991:75-6).

For Simon, comprehensive rationality was impossible because decision makers lacked perfect information and the cognitive capacity to know and evaluate all possible courses of action. Simon thus proposed a model of "bounded rationality". Behaving in a boundedly rational way, decision makers adopt rules of thumb in order to simplify the choice between alternatives (Ham and Hill, 1993:84), such rules or predecisions being based on ideological, professional, cultural or similar grounds (Howlett and Ramesh, 2003:169).

In a similar fashion, for Lindblom, decision making proceeds by successive limited comparisons, whereby the number of alternatives considered is limited and focused on those alternatives that do not represent a significant deviation from existing policies. Unlike rationalism, this incremental approach considers facts and values simultaneously, i.e. evaluation and empirical analysis is intertwined (Lindblom, 1959) in order to select alternatives that ameliorate problems rather than aspiring to bigger goals.

Davos (1998) also cites Lindblom's later work (1980), which points out how, given complete information, decision analysts (coastal managers or ICZM experts) using a rational process should arrive at the same decision, however this is not the case in reality as both decision makers and stakeholders hold different interpretations of the problem and its solution. The failure of technically rational coastal management to engage in a discourse on these different interpretations thus leads to residual tensions that induce further conflict and undermine stakeholder willingness to cooperate (Davos, 1998:380).

Lack of perfect information also features in Rittel and Webber's conception of "wicked" planning problems, of which achieving sustainable coastal development may be considered one. In this case, the

accretion of knowledge about problems and solutions cannot be divorced from the social and political contexts in which problems exist; for them problem solving *"should be based on a model of planning as an argumentative process in the course of which an image of the problem and of the solution emerges gradually among the participants, as a product of incessant judgment, subjected to critical argument"* (Rittel and Webber, 1973:162).

2.4.2 The Communicative Turn in Planning

It is such criticisms of the rational approach to planning that precipitated a turn towards a more post-modern, value-oriented, participatory style of planning. This style is commonly known as communicative or collaborative planning, being built upon Jurgen Habermas' *Theory of Communicative Action* (1984), the work of Michel Foucault (1972) on the expression of social meaning and power relations through language (Healey, 1996, 1997, in Allmendinger, 2009:197).

In keeping with Davos' assertion that notions of "best" coastal management practice are the process of an expert-led, technically rational approach that does not fully engage stakeholders in interpreting the nature of problems and the way they should be addressed, Huxley explains that the communicative planning literature recognises that technical and political neutrality "are seen to be incapable of achieving planning's reformative goals" (2000:369). Furthermore, Davidoff posits that "values are inescapable elements of any rational decision making process" (with Reiner, 1962, in Campbell and Fainstein, 2003:211).

Communicative approaches to planning therefore have many insights to offer participatory coastal management programmes, and indeed stakeholder involvement is considered not only a cornerstone of approaches to ICZM, as evidenced in *ICZM Recommendation 2002/413/EC*, but also to the broader landscape of societal governance, in which Hajer and Wagenaar describe that "many pressing problems no longer comport with the established systems of politics, administration and society. Practical needs drive the development of cooperative efforts among new constellations of actors" (2003:2). These conditions have given rise to what is known as deliberative or discursive democracy, that is, a democracy that is legitimated by the ability or opportunity to participate in effective deliberation on the part of those subject to collective decisions (Dryzek, 2002:1).

In this post-modern approach to planning, Howlett and Ramesh observe that the identification of problems by policy makers in a rational process is "deceptive", as decision makers are still subject to the same discourses as the general public (2003:122). Therefore rationality is also shaped within a context

of ideologies, events and symbols that are socially constructed by decision makers. For Michel Foucault, whose work forms the basis for much thinking about communicative planning, the study of social theory was based on the historical formation of discourses and the production of knowledge by discursive action.

Perry (1995) observes that Foucault advocated thinking spatially about society, and to this end planning discourses should be seen "in their contextual places in society" (Perry, 1995, in Campbell and Fainstein, 2002:145). Thinking in this way allowed for an assessment of the intellectual structures that defined, controlled and reproduced modes of discourse through strategic use of language. Discourse was considered a "language game", and, according to Arts and Tatenhove, power a diffuse characteristic of social practices which operate through discourse (2004:349).

In his early writings on social control, for example, Foucault demonstrated how power could be pervasive and constitutive of oppressive discourses, for example about criminality and health (Dryzek, in Moran, Rein and Goodin, 2006:192), and that institutions such as prisons and hospitals reinforced these social orders. Where power was exercised, Foucault envisaged the possibility of resistance or struggle against power or dominant modes of thought, however many scholars have pointed out that Foucault was ambiguous on what form this resistance should take (see Dryzek, 2006, Delanty, 2005 and Fischler, 2000).

Whilst this concept may be considered abstract in the context of coastal management, Foucault's work raises some relevant points about communication that have relevance for understanding participatory forms of planning. Firstly, in examining how modes of thought and social orders are historically and culturally constituted through discursive practice, Foucault demonstrates that discourses may be socially constructed in ways which reinforce dominant views or practices.

Delanty notes that revealing how power and identity are constructed has limited usefulness for policy relevant research (2005:112), however in the context of this thesis attempting to understand the way in which the current framework of coastal governance is structured by the prevailing scientific or political discourses and the ways in which problems are defined as requiring formal (statutory) or informal (voluntary) actions may help to inform new discursive practices in coastal management.

In relation to public policy and policy analysis, Arts and Tatenhove describe how power

> "*... is the organisational and discursive capacity of agencies, either in competition with one another or jointly, to achieve outcomes in social practices, a capacity which is however co-determined by the structural power of those social institutions in which these agencies are embedded"* (2004:347).

This is particularly important for the functioning of coastal partnerships, where securing the resources to implement projects may be based not only on an ability to negotiate with other organisations within the system of coastal governance, but may require more fundamental changes to the system itself, such as a change of policy or the creation of a new institution.

Habermas was also concerned with discursive action, but unlike Foucault whose main concern was with the wider structuring of modes of thought and collective discourse, Habermas concentrated on the "specific utterances" of individuals in their communication with others.

Habermas' concept of communicative rationality sought to reconcile the instrumental rationality of the "system" or political world in which the structures of economic and political order exist (Healey, 2006:50) with the "lifeworld" of people's everyday lives, interactions and personal experiences (Tewdwr-Jones and Allmendinger, 1998:1975). According to Habermas (1987, in Allmendinger, 2009) the system envelops and shapes the lifeworld, thus limiting people's ability to "develop, confirm and renew their memberships in social groups and their own identities" (Habermas, quoted in Healey and Hillier, 1995:21).

Thus communicative rationality sought to uncover distorted forms of communication and reveal its emancipatory potential (Delanty, 2005) in a critically discursive democracy, one of the central features of this being the idea of authentic communication. Dryzek posits that authenticity reflects the extent to which discourse is free from distorting agents or domination via the exercise of power, manipulation, indoctrination, propaganda, deception, expressions of mere self-interest, threats, and the imposition of ideological conformity (2002:8). To a similar end, Low outlines four claims that Habermas makes, conveying the validity of communication or presenting an "ideal" speech situation - without these conditions being present in the act of speech, we cannot claim to be communicating at all. These claims are:

1. Truth of propositions about our external reality,
2. Rightness of our interpersonal relations with the other person,
3. Truthfulness about our internal subjective state,
4. Comprehensibility of our language (Low, 1991:248).

According to Fainstein, the communicative planning model draws on a synthesis of two methodologies – firstly an inductive enquiry, which searches for examples of best practice in democratic planning, exploring who the practitioners were, what they did, and what institutional conditions helped or hindered their efforts (Hoch, 1996, in Fainstein and Campbell, 2003), and secondly based on a hypothesis of intersubjective communication and mutual understanding. It is with this proposition that Habermas sought to "rescue the concept of reason from the narrow instrumental rationalism" (Healey, 2006:50), building knowledge and agreement through free and open discourse between individuals in a process that was *communicatively* rational.

John Forester was one of the first writers to observe how planning was subject to distorted forms of communication, stating that *"the communicative character of planning practice involves much more than how clearly planners write or speak. What planners choose to say – and choose not to say – is politically crucial"* (1989:153). In calling for a more open planning process in which there was greater interaction between the planners and those being planned for, Forester therefore saw the role of planners as gatekeepers, drawing attention to different possibilities and exposing powerful interests through communicative actions (Allmendinger, 2009:138-9).

Based on Habermas' ideas about speech, Foucault, the work of Forester and others, Healey (1992:154-6) outlines the main components of a communicatively rational planning approach as:

- Planning as an interactive and interpretive process,
- Interaction within diverse and fluid discourse communities,
- Interaction based on respectful discussion,
- A focus and reflection on the arenas in which discussion takes place,
- Acknowledgement of different ways of knowing and forms of knowledge,
- Development of reflective capacity to evaluate the communicative process,
- Opening up of discourse to include all interested parties, revealing further discourses and arenas of debate,
- Understanding the interests of participants, learning and mutually constructing new understandings,
- The potential for societal transformation through discussion and the power of "the better argument",

- A starting point for a continually evolving process of building shared understanding and desired outcomes.

Whilst these components represent a normative position on the way communicative rationality can be achieved, there are many aspects that can be directly related to the process of coastal management and achieving integration. First and foremost, in providing an arena for discussion in which all points of view are considered to be equal and valid, different and competing interests may be brought together in a less adversarial manner.

Acknowledging different forms of knowledge and knowledge creation is particularly important in coastal zone management, where scientists may not relate their research to management issues and coastal managers lack the knowledge to assist scientists (GESAMP 1996, in Stojanovic *et* al, 2009), or local, traditional ecological knowledge may need to be accommodated. Hedelin (2008) observes that, in relation to water management, the integration and use of knowledge in a planning process is inherently difficult because stakeholders hold different values and perspectives about resource management problems (2008:231).

Sharing information and encompassing knowledge from different disciplines is not only important for addressing the horizontal dimension of integration, between organisations and individuals of different sectors, but also helps in trying to address issues of uncertainty, where understanding different values and priorities that may serve as the basis for rational reasoning throughout the process (Klosterman, 1978, and Rayner, 1999, in Hedelin, 2008:232).

Opening up planning processes to diverse communities, reflecting upon the communicative process and arenas of debate can bring about greater vertical integration by widening the scope of discussion to include a broader range of stakeholders. When taken in conjunction with the notion of communicating in more comprehensible language, this “opening up” could therefore include those non-expert stakeholders not traditionally expected to be involved in discussions of a more technical, scientific nature that usually occur at higher levels of governance and decision making, for example in designating Marine Protected Areas.

Introducing a more reflective element to the planning process which considers where and in what format discussions take place, planners and decision makers are also able to consider how the most significant features of more top-down, formally imposed consultation structures (such as the public

consultations on Local Development Plans and Sustainability Appraisals) and more informally led, grassroots or bottom-up organisation (such as coastal fora) may be combined or redesigned to facilitate greater dialogue between stakeholders and the search for shared values or preferred courses of action.

The communicative approach to planning is not without its criticisms, and Allmendinger and Tewdwr-Jones (2002) provide a critique of some of the fundamental assumptions communicative planning theory has taken and outline further questions about how communicative planning may be operationalised. Whilst the underlying assumptions of communicative planning are significant for the hypotheses that underpin this research, Allmendinger and Tewdwr-Jones' initial discussion of communicative planning framed as a new paradigm in planning thought are outside the scope of this research, and thus it is sufficient to say that communicative or deliberative practice is perhaps *the* hegemonic idea of planning (Ritchie and Ellis, 2010:707).

A second issue noted by Allmendinger and Tewdwr-Jones is that problem-solving by agreement is only one form of collective decision making, and that bargaining or voting may also be utilised, with bargaining particularly used where there is unequal access to power and unequal intensity of preferences to be traded off (2002, citing Elster, 1998:7), although communicative planning theorists do not make clear the circumstances in which the communicative approach is the most appropriate method of decision making.

Such a criticism may be pertinent to the operation of coastal partnerships, where the delivery of projects is highly dependent upon bargaining or persuading partners to contribute resources, for example in undertaking research work such as marine surveys or hosting capacity building exercises. Where decision making is highly politicised or controversial, voting is one way in which a decision can be taken. However for some coastal partnerships, particularly those which are registered charities or hosted by local planning authorities, taking a position on such issues may not be permissible under the regulations governing their organisational structure and scope of activity, and thus deliberation on potentially divisive issues may have to be avoided altogether.

A last critique of communicative action concerns the motivation of participants and the assumptions made about the use of ideal speech. Allmendinger and Tewdwr-Jones observe that *"the assumption that participants will behave in such a way as to sustain fruitful deliberation ignores the fact that attitudes towards conversation do not originate from democratic arrangements, but are more likely to be by-products of a pre-existing culture that may be antithetical to deliberation"* (2002:15) and thus

participants may place more emphasis on winning an argument rather than engaging in a reflective, learning process. Similarly, private interests may be seen to enter into more collaborative practices as a means of gaining public legitimacy, and again are less concerned with the transformative potential of such arrangements.

In considering the use of the communicative planning approach the criticisms outlined above therefore highlight some of the potential pitfalls of communicative action. In terms of the circumstances under which communicative action might be the most appropriate method of decision making, it should be noted that any kind of spatial planning activity carried out by the public sector or on behalf of "the public interest" requires an element of communicative action to gain legitimacy, whether it is for a strategic policy such as the consultations on England's ICZM Strategy (see DEFRA, 2006a) or more site-specific proposals such as a planning application for a new hotel, and these processes are governed by law (for example the Town and Country Planning Act 1990, updated by the Planning and Compulsory Purchase Act, 2004). Thus the use of communicative action, to a certain extent, can remain bound by existing democratic and legal structures.

2.5 Communicative Action and Coastal Planning Regimes

In the sphere of environmental or natural resource management, Crance and Draper observe that "Because of the abundance of interdependencies operative in many resource use situations, management efforts must be redefined to suit unique circumstances" (1996:175) and thus ICZM represents one such example where sharing information, power and decision making are used to make decisions in a way that commands greater support from the parties or stakeholders that will be affected by the outcomes of such decisions. In arguing for a more inclusive and deliberative form of coastal management, Brown *et al* outline four ways in which this might contribute to the development of coastal management. These are:

- Increased awareness and understanding of conflicts of interest, information and related to interpretations of information,
- Providing space for learning and participating in decision making,
- Facilitating communication that builds trust and shared stakeholder knowledge about resources,
- Building a platform for collective actions and new institutions of coastal management. (2002:120).

This collective, deliberative approach to governance is reflected in the use of the term "partnership" in relation to coastal management in the UK, but partnership working more specifically has its roots in the broader changes to politics and the governance of the state which occurred in the 1980s and 1990s.

Having defined governance in Chapter One as referring to the arrangement of actors collaborating to deliver public policy, Rhodes (1994) and Peters (1993) describe the governance regime of the 1980s as a "Hollowing out of the state", whereby the decline of citizen participation in electoral politics, reduced state involvement in direct service provision and the increase in arm's length delivery agencies, and also the influence of supra-national organisations such as the European Union transferring powers upwards or downwards away from central government to regions and local level has resulted in more complex, multi-level governance. Whilst ICZM practice in the UK bears some resemblance to the model of hollowing out in that the central government tier has been the weakest link in delivering a programme of ICZM as set out in*ICZM Recommendation 2002/413/EC*, this has not been accompanied by a loss or transfer of powers because the *Recommendation* did not require any additional statutory powers to be established in the lower tiers of national, regional or local government and so does not represent hollowing out in its truest sense.

Whilst the history of joint working between organisations to deliver a common aim goes back much further than can be described here, Skelcher describes how, in a similar vein to the comment made by Hajer and Wagenaar (2003) above regarding new arrangements of actors forming out of the need to tackle complex issues, partnership formation has been initiated because *the conjunction of hollowing out and cross-cutting issues has stimulated the widespread use of strategies designed to foster collaboration in this fragmented landscape* (Skelcher, 2000:8) and contributes to the development of what he terms the "congested" state, comprised of many organisations working to deliver public policy.

It is also pertinent to note that Sullivan and Skelcher state that "Very often differing policy fields begin with a bespoke interpretation of partnership that is not shared beyond that policy area" (2002:5) Thus the concept of partnership working in the context of ICZM can describe a range of different organisational structures based around the delivery of ICZM by more or less formal means, but beginning with the *ICZM Recommendation 2002/413/EC* principles of:

> *(f) involving all the parties concerned(economic and social partners, the organisations representing coastal zone residents, non-governmental organisations and the business sector) in the management process, for example by means of agreements and based on shared responsibility;*

And

> *(g) support and involvement of relevant administrative bodies at national, regional and local level between which appropriate links should be established or maintained with the aim of improved coordination of the various existing policies. Partnership with and between regional and local authorities should apply when appropriate;* (CEC, 2002)

The principles outlined here thus emphasise both integration in the horizontal dimension, that is, between sectors or organisations operating within the coastal zone, but also vertical integration between multiple layers of governance. This necessitates a process of negotiation between a broad range of public, private and voluntary sector bodies at local, regional and national level to reach agreement about the what action is to be taken, but also requires a specific structure in which such negotiations can take place.

In Chapter One a typical coastal partnership organisational structure was described as a partnership officer, steering/management group and sub-groups, and it is usually representatives of core funding agencies that make up the central body of the "partnership". Beyond this, coastal partnerships may be open to membership by groups or individuals with an interest in their activities. There is great variation in several aspects of coastal partnerships and their work, which can be summarised as follows:

- *Administrative arrangements:* these are closely bound with sources of partnership funding and host organisations, for example many English coastal partnerships are funded by county or local planning authorities such as the Dorset Coast Forum, Sefton Coast Partnership and East Riding coastal Forum. These partnerships receive financial support and benefits "in kind" in the form of office space and support staff. Some partnerships are hosted by university departments where there is a strong academic interest in the local environment, for example the Colne Estuary Partnership is hosted by Essex University's department of Biological Sciences, whilst the East Grampian Coastal Partnership is hosted by the Macaulay Land Use Institute in Aberdeen. Other partnerships may be linked to specific projects such as English Nature's Estuaries Initiative, which ran from 1992 to 1998 (see Morris, 2008), and some function as charitable organisations such as the Morecambe Bay Partnership and Solway Firth Partnership. Sources of funding beyond host organisations can include project funding from European Union and national bodies such as the Environment Agency, DEFRA, English Nature, private sector sponsors such as utility companies and landowners, NGOs and small community grants or charitable funds.

- *Geographical coverage:* again, this aspect of coastal partnerships can be tied to specific funding arrangements, host organisations or pre-existing landscape and conservation designations. In some cases partnerships focus their activities on one water body or stretch of coast such as Durham Heritage Coast, or may cover a broader area including several water bodies at county, sub-regional or regional level, such as Devon Maritime Forum or the North West Coastal Forum. As has previously been noted, the Firths provided the initial focus of activities for Scottish coastal organisations, and encompass large areas of sheltered seas, estuaries and their surrounding coastal communities, which may include large cities and industrial areas such as Glasgow on the Firth of Clyde.

- *Remit:* whilst some coastal organisations may have a specific remit relating to the management of designated areas such as Heritage Coasts, European Marine Sites or Areas of Outstanding Natural Beauty, or managing coastal flooding and erosion through Shoreline Management Plans in the case of Coastal Groups, the majority of coastal partnerships are able to define their own terms of reference, visions, strategies or plans. Morris (2008) notes that Estuary Management Plans were perceived in some quarters to be conservation led, but their intended remit encompassed broader economic development and conflict resolution themes. As was stated in Chapter One, some of the aims of coastal partnerships include facilitating cooperation and conflict resolution, raising awareness of coastal issues and promoting local enterprise and providing research and consultancy functions.

The lack of a prescribed format for partnership working in coastal partnerships therefore provides great scope for individual organisations to define their own ways of working with the resources they have available and the stakeholders or interests present in their local area. English Nature's *Estuary Management Plans: a co-ordinator's guide* (1992) provided an early form of guidance for coastal and estuary partnerships for plan making and stakeholder involvement, but it was not until Lymbery's (2008) *a Guide to Collaborative Working on the Coast – Two Heads are Better Than One* that a more systematic process for designing and implementing partnership working practices was applied to analyse the working practices of coastal partnerships.

In this guide Lymbery summarises some of the key theoretical and practical literature on collaborative working, most notably the Audit Commission's own guide to partnership working, *a Fruitful Partnership (1998)*, which defines partnership as *"otherwise independent bodies who have agreed to cooperate to achieve a common goal and create a separate structure to plan and achieve their goals" (1998:6)* and sets out the rationale for partnership working, encouraging organisations to consider first whether they need to work in partnership, and if so then setting out criteria for establishing organisational structures, identifying partners, building trust, maintaining commitment and decision making.

Lymbery refers to two further strands of literature which may be used to structure or evaluate the work of coastal partnerships – these are Barbara Gray's work on inter-organisational collaboration (see Gray, 1986, 1996, Wood and Gray, 1991) and Chris Huxham's work on collaborative advantage (see Huxham, 1993, 1996). Both Gray and Huxham provide a step-wise format for understanding the process of collaborative or partnership formation, decision making and implementation in which stakeholders are able to explore theirs and others motives for entering into a collaborative venture, engaging in an open debate which acknowledges differences in expectations, powers and ways of working, for example: *"don't expect other organisations to do things the same way that yours does. Things that may be easy to do in your organisation may, for example, require major political manoeuvring in another"* (Huxham and Vangen, 2005).

The frameworks provided by Gray and Huxham thus give practical expression to a wider literature concerning communicative or collaborative approaches to planning, and which form one dimension of the assumption relating to improved integration requiring a continuous discourse between stakeholders on the nature of problems and their potential solutions.

Whilst the discussion of collaborative planning in this chapter has specifically focused on the delivery of ICZM in the UK as a type of environmental management, such participatory and communicative forms of environmental governance can be applied equally to other coastal planning regimes. The processes of terrestrial spatial planning, shoreline management, river basin management and marine planning all contain an element of public participation, whether this is mandated through legislation and formal statements of involvement (for example Statements of Community Involvement for spatial planning, the *Working Together* provisions of River Basin Management outlined by the Environment Agency and the proposed Statements of Public Participation for Marine Planning – see DEFRA, 2010b) or recommended practice (such as DEFRA's 2005 *Making Space for Water* coastal flooding and erosion management

document and Shoreline Management Plan Guidance, or the principles of*ICZM Recommendation 2002/413/EC*).

Whilst participation in each undoubtedly contributes to the plans that are produced, much of this participation takes place in a predetermined framework that specifies when and what form of participation is required in the implementation of a management process. Underpinning such frameworks for coastal management regimes are the social constructions of problems and solutions, which determine the type of policy response that is implemented and are the subject of the first assumption of the research.

Within the framework for coastal integration shown in Figure 1.2, measures such as spatial planning, ICZM, marine planning, river basin management and shoreline management have all developed along different trajectories, coming under the jurisdictions of different levels of government. In some cases, the social construction of a problem may result in more formal, top-down styles of governance in which central or international levels of government and their associated powers are judged to be the most appropriate means to address cross cutting sustainability concerns, such as the European Directives related to water quality and nature conservation. Conversely, bottom-up, voluntary approaches such as the work of coastal partnerships in relation to ICZM, bringing together organisations in collaborative arrangements to develop a shared power may prevail.

Therefore to fully understand the current context of ICZM implementation in the UK, it is necessary to examine the way in which the "coastal problem" was initially constructed and the historical development of the ICZM regime. By understanding the discourse (or discourses) which surround the construction of coastal problems, it may then be possible to find ways in which a new discourse on the role of communicative action and its significance for improved integration can take place. Following a similar line of investigation for other coastal planning regimes may contribute to this understanding, as they can serve as a useful comparator, highlighting different discourses or different consequences of similar discourses in different contexts.

2.6 Conclusion

In this chapter, two central features of ICZM have been introduced. First, the concept of management as a learning process, in which going through several iterations of a planning cycle can lead to changes in

management goals and methods. This process is enhanced when there is a greater dialogue between stakeholders and opportunities to reflect on different perspectives of how the management process has functioned and future directions it may take.

Secondly, in examining the meaning of integration, several dimensions of integration are identified as being important for improving coastal management. The spatial integration of the coastal zone represents an area in which different constructions of the physical environment overlap and this gives rise to a complex system of regulations and plan areas. In turn, this creates a need for the integration of institutions, sectors, policies and even academic disciplines to ensure that all stakeholders and activities are considered in coastal management and to reduce the chances of there being duplication of efforts.

The theories of deliberation, communicative rationality and the use of language examined in this chapter all provide some insight into the ways that coastal problems and the processes for dealing with them are not only socially constructed by stakeholders but may continue to be reconstructed through dialogue, which has the potential to reinforce existing power relations or governance structures and undermine the appeal of participatory planning approaches, or open up new avenues for learning and collaboration in a more adaptive management process. Such communicative approaches are crucial for understanding the extent of integration in different dimensions and working towards a more integrated form of coastal management.

In the next chapter, the process of social constructing environmental problems is considered in more detail, in order to determine how it may impact on the implementation of coastal planning regimes in practice.

CHAPTER 3: Exploring the Social Construction of Coastal Management Problems

3.1 Introduction

Having established in the previous chapter the basis of collaborative planning and the potential this has for improving different dimensions of integration in coastal management, this chapter returns to the theme of socially constructed environmental problems and attempts to meet Objective Two, that is, *to explain the emergence of coastal planning regimes in terms of the social construction of a "coastal problem" in order to understand the different policy responses that might occur.*

In Chapter One the non-statutory and voluntary nature of ICZM initiatives in the UK was set against the context of more complex arrangements for managing the coast, with the emergence of the Marine and Coastal Access Act providing fresh impetus on discussions for the future role of ICZM (see Stojanovic and Barker, 2008), particularly in light of more formal planning processes such as Marine Planning and River Basin Management moving up the political agenda.

Considering these different parts of the framework for coastal integration to be the product of social constructions of different problems, such as coastal development, marine management, flooding and water quality, this chapter examines in more detail the historical development of coastal planning regimes through the environmental sociology-social construction model proposed by John Hannigan.

First, the roots of the environmental sociology movement are established in order to demonstrate how this perspective has much in common with the ecosystem approach advocated in ICZM. Hannigan's proposed model for the social construction of an environmental problem is then explained, and applied to ICZM, Marine Planning and River Basin Management Planning to trace the emergence of planning and management regimes as a response to the various problems of the coastal zone and marine environment.

It is anticipated that using the social construction model it will be possible to identify those events and discourses which have contributed to the construction of coastal problems, giving rise to the current dominant planning and management regimes designed to ameliorate such problems. The chapter

concludes with an evaluation of the usefulness of Hannigan's social construction model for understanding the ways in which coastal planning regimes come to be implemented.

3.2 Sociological Perspectives on the Emergence of Environmental Problems

The field of environmental sociology is a relatively new addition to the more traditional sub-disciplines of sociology. It emerged in the late 1960s and early 1970s as a research area identified by Catton and Dunlap (1979) as being distinct from the sociology of environmental issues.

The sociology of environmental issues explored environmentally related phenomena, such as social movements, resource management and recreation activities in "natural" environments through traditional sociological perspectives (Buttel, 1987:467). In this respect the sociology of environmental issues has at its core an anthropocentric world view, or what has been labelled the "Human Exceptionalist Paradigm" (HEP).

The HEP assumes that people are fundamentally different from other creatures, that they can determine their own destinies and that there are no constraints on human society (Irwin, 2001). Such a perspective draws on the Durkheimian concept that social phenomena can only be explained by way of social facts, which are defined as

> *"Ways of acting, fixed or not, capable of exercising on the individual an influence, or an external constraint" (Durkheim, in Martin and McIntyre 1994:438)*

Durkheim viewed social facts as "things" existing outside the individual consciousness with the power to control an individual's behaviour, and consisting of representations and actions which should not be confused with biological phenomena.

In a departure from this traditional sociological thinking, environmental sociology explains social phenomena in terms of non-social facts. Catton and Dunlap (1979) define the new environmental sociology as involving the recognition of the fact that physical environments can influence human behaviour and society and vice versa. This standpoint also differs from the worldview offered by the HEP in that, although humans are seen as a species with exceptional characteristics, they are merely one of many species existing in an ecosystem and are thus bound by environmental constraints.

This alternative set of assumptions emphasising the interactions between humans and their environment in an ecosystem setting has been termed by Catton and Dunlap the New Ecological or Environmental Paradigm (NEP). The exploitative relationship between humans and their biophysical environment is central to the NEP, which envisions a neo-Malthusian style global catastrophe resulting from continuing population growth and unchecked economic development (Hannigan, 2006:30).

Another division central to thinking in environmental sociology is the realism versus constructionism debate. Socially constructed knowledge is a product of interaction or communicative action rather than objective observation of the world, and whilst the objective conditions for a potential social (or environmental) problem may exist, it is argued that these may be insufficient for the problem to emerge and that the existence of problems may be dependent upon groups or agencies that define a condition or problem and attempt to do something about it (Kitsuse and Spector, 1973, in Yearley, 1991:50). This may be the case, for example, in scientific investigations.

In terms of the environment, therefore, John Hannigan suggests an approach that is less concerned with the objective truth about environmental problems per se but rather that social constructionist sociology should consider how problems come to be constructed by the interaction of the social actors, types of knowledge deployed and the power relations between these factors (Irwin, 2001:171).

Because of this approach, social constructionists have been criticised by realists for downplaying the reality of environmental crises which are thought (by realists) to exist independently of representations or social constructions. This is because social constructionism rejects the notion of objective facts derived from empiricism and the imposition of truth on others, allowing for a diversity of representations of “nature”, “the environment” and what resources are considered to be of value in different cultural and historical settings. Indeed, the coastal zone itself may be constructed in a number of ways by competing interest groups, as has been demonstrated in Chapter 2 in relation to the biophysical and policy-oriented definitions.

The reductionist analysis of social constructionism offered by realists in this case ignores the fact that such an approach has a distinct advantage in being able to explain how environmental problems are framed and can rise to prominence, given the contested natures of reality and truth and the power relations embedded within language and action. Dryzek notes that

> "Just because something is socially interpreted does not mean it is unreal… but people can make very different things of these phenomena and – especially – their interconnections, providing grist for political dispute" (2005:12).

Dickens also observes that the 'construction versus realism' dichotomy is misleading because realists acknowledge that all knowledge is in some sense a social construction – it does not appear with a label pronouncing it to be absolute truth (1996:71).

What realists object to is 'strong social constructionism' which denies the independent agency of the natural world (i.e. that environmental change is a phenomena that exists in the non-human world independent of social construction) and makes the assumption that social constructionists treat all claims as equally valid (Dunlap and Catton, 1994).

Thus in the first instance, the realist critique finds social constructionists to lack the moral imperative to contribute to the management of environmental problems, a normative position of the environmental sociologist, and in the second instance, Catton and Dunlap argue that "If all truth claims have validity, then there is no basis for endorsing some over others, and thus no basis for becoming proactive" (Ibid, 94:22). In other words, constructionism, as a relativist standpoint, offers no moral or political foundation for action (Gergen and Gergen, 2003:228).

However Burningham and Cooper point out that within social problem research, the majority of social constructionist analyses do not contest the reality of environmental problems. The job of the social constructionist is not to question whether a problem exists, or to assess the validity of claims being made about the problem (thus favouring certain positions over others), but to attempt to account for the emergence, organisation and maintenance of claims-making activity (1999:304).

It is for this purpose, therefore, that Hannigan's (1995) model of the social construction of environmental problems is used as a framework to analyse the emergence of planning and management regimes related to the coastal zone. Hannigan, acknowledging the objective conditions in which environmental problems exist, recognising "the mess which we have created in the atmosphere, the soil and the waterways" (1995:3), states that:

> "Social construction makes a valuable contribution to environmental policy making by asking important questions about who makes claims for the existence of environmental

problems and who opposes them, thus allowing us to situate environmental issues within relevant social and political contexts" (Hannigan, 2006: 33).

More importantly, the successful construction of an environmental problem is crucial to ensuring sustained public and political attention to the perceived problem and implementing policy responses and the analysis of how claims for water, coastal problems are constructed is vital to understanding the current context of coastal governance and the relationship between planning and management regimes.

Hannigan argues that there are six essential factors or prerequisites for the construction of an environmental claim. These are:

- *Scientific authority for and validation of claims* – in order for an environmental claim to be made, a problem (i.e. a change in environmental conditions) must be observed and defined, providing grounds for a claim. Observations can rarely be transformed to problems without scientific evidence to support a claim – however, scientific truths can be matters of dispute, and thus the public impact of such evidence may be of more importance then the correctness of the claim.

- *Existence of popularisers* – popularisers, in the form of moral or policy entrepreneurs can be advocates in or outside government who are prepared to invest their time and resources for a favourable return such as a new policy or the elevation of personal status (Kingdon, 2003:122, or described in some literature as reticulists). Popularisers are required to raise the visibility of a problem, commanding the attention of a wider audience of opinion-makers.

- *Media attention* – use of the media by entrepreneurs is a necessary activity for attracting the attentions of the general public to the claim being made. This highlights the perceived weaknesses in prevailing institutional, legislative and policy arrangements, prompting reconsideration of the appropriate interventions required (Peel and Lloyd, 2004:367).

- *Dramatisation of the problem in symbolic and visual terms* – in concurrence with gaining media attention, potential environmental problems must be dramatised in a manner which communicates their effects in a clear fashion and heightens public concern, for example through film, pictures, charts or rhetorical motifs that evoke an imagery of significance or risk.

- *Economic incentives for taking positive action* – an economic case must be made for intervention in an environmental problem. However, economic incentives for one group may involve costs for another (as can be seen in many preservation versus economic development arguments in developing nations). Randall cites the incomplete specification of property rights as a major source of conflict in natural resource use (1981:148). Without the clear definition of rights, restrictions and penalties for the violation of such restrictions, the incentive to trade property rights as a way of resolving conflict is reduced and the likelihood of continuing conflict increased (Marshall *et al*, 1996:169).

- *Recruitment of an institutional sponsor* – for a potential problem to move up the policy agenda, an institutional sponsor is needed to ensure legitimacy and provide continuity towards implementing some sort of action to ameliorate the problem, for example the introduction of legislation or changes to existing policy. Sponsors could take the form of, for example, pressure groups or government agencies.

Whilst these prerequisites for the successful construction of an environmental problem are presented here in a logical sequence, the model does not necessarily follow a linear structure of consecutive steps. As noted by Peel and Lloyd in relation to the problems of the marine environment, an emerging institutional sponsor's activities and the deployment of regulation and policy integration provides de facto incentives for stakeholders (2004:369). This could translate into an example of the threat of financial losses for non-compliance with regulation or failing to anticipate changes in an ethical consumer driven market. However, what remains essential here is that all six prerequisites are met.

Another model of the politicisation of environmental problems was proposed by Anthony Downs in the 1972 article "Up and down with ecology – the 'Issue-attention cycle'". In Downs' model environmental problems are brought to public attention and fade from view in a linear process which shares much in common with Hannigan's social construction model.

In the early or pre-problem stage, scientific interest and enquiry exists. This is followed by alarmed discovery, whereby public awareness is increased (e.g. by dramatic events, popularisers and the media), and gives way to "euphoric enthusiasm" about society's ability to solve this problem or 'do something effective' within a short space of time (Downs, 1972:41). This forces an institutional response, for example the establishment of new institutions, programmes or policies to deal with the problem.

Increasingly, these stages of the cycle are becoming inseparable due to the speed at which information moves and public pressure to act (O'Riordan, 2000:65).

It is at this point where Downs and Hannigan's models begin to diverge. In the case of Hannigan, institutional sponsors and economic incentives for positive action come to the fore and this maintains interest in the perceived problem. However for Downs, realising the cost of significant progress in trying to solve a problem (either in financial terms or by lifestyle changes) may prove to be a disincentive, particularly when sections of society must lose some benefits, for example being reluctant to give up car use.

These disincentives or the suppression of thoughts about the problem to be faced lead to a gradual decline of intense public interest, and by this time another problem may be making the headlines. Therefore an issue reaches the post-problem stage, where it exists in some sort of "limbo" (Downs, 1972:40), receiving less attention, although it may at some point recapture public interest.

Therefore the issue-attention cycle represents more of a spiral in public attention to environmental problems – after the initial interest in the problem has waned, knowledge of the problem becomes embedded within institutions and individuals. At the time when the issue does recapture attention, there remains an institutional base from which to develop more effective policy (Connelly and Smith, 2003:132). And, according to Downs (1972), having gone through the cycle, the problem will attract a higher level of attention than others still in the pre-discovery stage.

Both Hannigan and Downs thus provide examples of ways in which the identification of a problem can lead to a new or changed public policy. Whilst Downs (1972) presents the emergence of a problem and implementation of a solution as a gradual process, attention quickly wanes once a potential solution is found to be not readily available. Hannigan's model, in contrast to Downs, provides a more contemporary perspective, reflecting the way in which the use of the media not only allows for a much more rapid communication of information but also plays a greater role in shaping and maintaining the discourse about the solutions to problems.

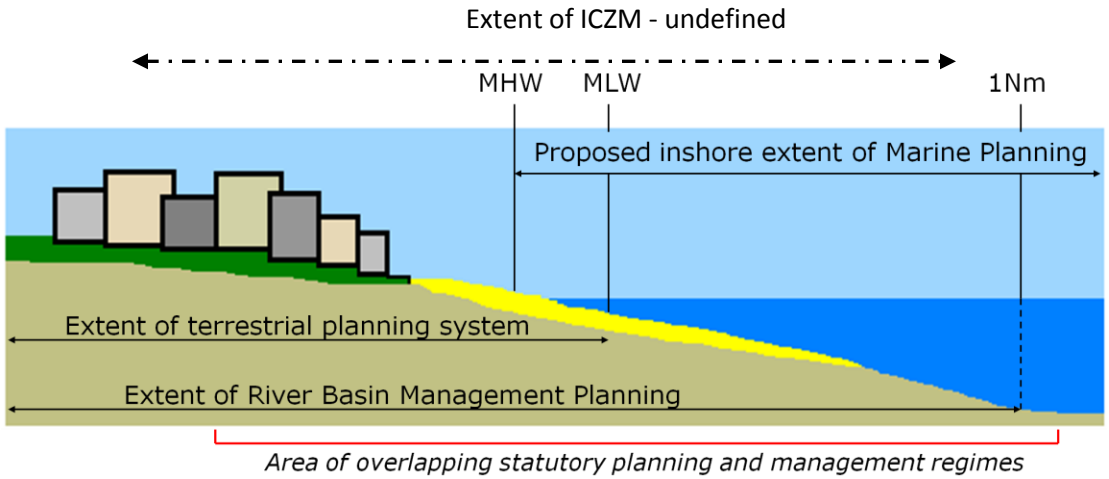
3.3 the Social Construction of the "Coastal Problem" and Planning Regimes as a Response

In this section, Hannigan's model of the social construction of environmental problems is used to trace the emergence of planning and management regimes as a response to the problems of the coastal zone and marine environment. Whilst the focus of this exercise is on ICZM, the development of ICZM will be considered alongside Marine Planning and River Basin Management.

These two regimes have been chosen for comparison for several reasons. First, they constitute part of the government's framework for coastal integration as described in Chapter One and shown in Figure 1.2 alongside ICZM. Unlike Shoreline Management Plans, which have a quite specific purpose in relation to flooding and erosion, MP and RBMP have broad sustainability objectives at their heart, whether this is reaching good chemical and biological status for waters (in the case of RBMP), or contributing to the government's vision of *clean, healthy, safe, productive and biologically diverse oceans and seas* (HM Government, 2010).

The second reason for choosing Marine Planning and River Basin Management is that like ICZM, they aim to encourage different dimensions of integration. The spatial element of integration can be seen in their overlapping jurisdictions in the coastal zone.

Figure 3.1: Overlapping Coastal Planning Regimes



Source: Author

Figure 3.1 shows that with Marine Planning extending onshore to Mean High Water and River Basin Management Plans covering estuary waters out to 1 Nautical Mile, this overlap in plan jurisdictions should in theory mean similar, or at an ideal end of the spectrum, harmonised plan objectives for those

waters. Besides this area of spatial integration, ICZM, Marine Planning and RBMP seek to integrate sectoral policies for water, coastal land or sea use through, for example, the streamlining of licensing procedures for marine aggregates, or replacing a series of water quality Directives with one single Directive that encompasses all water sources. However, as these regimes have emerged at different times, examining their social constructions independently may reveal different understandings which contribute to different types of management being utilised.

A third reason for examining these regimes is that all are driven directly or indirectly by the European Union, but implemented at different levels in the system of coastal governance. In the case of ICZM, *ICZM Recommendation 2002/413/EC* has been documented elsewhere in the thesis, and it has been observed that ICZM practice in the UK tends to follow the concept of "hollowed out" government described by Rhodes (1994) and others as there is limited regional or national government activity between coastal partnerships and the European level. The European influence is felt most strongly in the case of RBMP through the Water Framework Directive (Directive 2000/60/EC), which was transposed into national laws by the *Water Environment (Water Framework Directive) (England and Wales) Regulations 2003* and the *Water Environment and Water Services (Scotland) Act 2003.* River Basin Management Plans, which are required under the Directive, are produced by the Environment Agency for England and Wales and SEPA in Scotland at a catchment (regional) scale.

Marine Planning is more indirectly affected by the European Union than ICZM and RBMP, with the UK government and devolved administrations appearing to act as the main driver for the Marine and Coastal Access Act, although some of the UK's powers in relation to the marine environment are derived from the UN Convention on the Laws of the Sea (UNCLOS) and the EU's Habitats Directive (92/43/EEC). However, the provisions of the Marine and Coastal Access Act come with some anticipation of future European level initiatives – notably the EU's proposal for an Integrated Maritime Policy, part of which will include Maritime Spatial Planning for European Marine Regions. It is envisaged that implementation of Maritime Spatial Planning will be the responsibility of Member States, (see *Communication from the Commission - Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU*, CEC, 2008) and thus Marine Planning in the UK will build relevant capacity and experience early on. In relation to marine environmental protection, the EU's Marine Strategy Framework (which requires Member States to achieve "good environmental status" for marine waters) also provides some impetus for better planning and regulation of the UK's seas.

A final reason for selecting these regimes for comparison is the participatory element common to each of them. Again, participation in ICZM has already been examined in Chapter Two in relation to the principles set out in*ICZM Recommendation 2002/413/EC*. For Marine Planning, the Marine and Coastal Access Act requires a Statement of Public Participation to be prepared by the Marine Plan Authority (the MMO), which outlines *"the policies settled by the marine plan authority for or in connection with the involvement of interested persons in the preparation of the proposed marine plan"* (Marine and Coastal Access Act Schedule 6, Section 5 (2)), and members of the public, or those who may be affected by implementation of the Marine Plan are able to comment on both the draft Plan and the Sustainability Appraisal associated with the draft Plan.

In the case of RBMP, the Environment Agency states that "Involving stakeholders in water management is one of the main themes of the WFD. Ensuring and enabling the participation and influence of stakeholders will be an integral part of the river basin planning process" (Environment Agency, 2006a:22). Like with Marine Plans, there are a number of stages of the plan making process in which stakeholder involvement will be possible, including consultation on the Significant Water Management Issues (SWMI's) for each District, the Draft RBM Plan and Sustainability Appraisal.

It can thus be seen that there are a number of common features present in ICZM, MP and RBMP, despite them being designed to ameliorate different types of problem and being implemented with more or less formal levels of support. Comparing and contrasting the ways in which coastal, marine and catchment problems have been socially constructed may therefore provide some explanations as to why the implementation of ICZM has not experienced sustained high level support and slipped down the political agenda as a means of promoting the sustainability of coastal areas.

In the next sections, the comparison of the social construction of coastal, marine and catchment problems uses Hannigan's prerequisites to structure the discussion.

3.3.1 Common Origins for the Social Construction of Coastal, Marine and Catchment Problems

Coastal management in the UK in the form of coastal defences and drainage systems has existed since Roman times (Ballinger, 1999), and the establishment of Crown property rights over intertidal and sub tidal areas following the Norman Conquest has ensured that coastal and marine ecosystems have been subject to more formalised controls for many centuries (Gibson, 1993). The establishment of Crown

property rights and subsequent developments related to maritime industries were largely concerned with ownership, control and regulation, for example in relation to jurisdiction over open seas, ship classification and the safety of commercial shipping (Smith, 1999).

Nordstrom (2000:4) notes that at around 1800 records of human activity at the coast became less patchy, coinciding with a sharp upturn in the intensity of human development or intervention in the coastal environment. However, it was not until the late nineteenth and early twentieth centuries that the environmental protection dimensions of coastal management came to be addressed, following successive waves of industrialisation and the diversification of sea uses, their associated land uses and other land-based coastal activities. Therefore it is from this point that the necessary factors for the social construction of a coastal problem start to become apparent.

In a somewhat contradictory fashion to the model proposed by Hannigan (1995), the observation of marine and coastal environmental changes instigated the establishment of bodies concerned with investigation and environmental protection (i.e. popularisers and institutional sponsors) before coastal ecosystems were fully understood. For example, the International Council for the Exploration of the Sea (ICES), established in 1902 for the purpose of collaborative scientific research on the marine environment and fisheries was an acknowledgement of increasing worries about the stability of the major fisheries in North West Europe (Smith, 1999:527).

It was not until the Post-War period that scientific studies of the impacts of development in the coastal zone became more numerous and substantial. At the international level, major incidents such as the Torrey Canyon oil spill in Cornwall in 1967 focused attention on the need for better coastal and marine protection (Cicin-Sain, 1998:73), and for the UN Conference on the Human Environment (UNCHE) in 1972 (the Stockholm Conference), participating countries were asked to prepare reports on national environmental conditions.

The UNCHE allowed concerns about environmental degradation to be aired for the first time in an international context (Connelly and Smith, 2003:236), and some of the most important impacts of the conference occurred in the ocean and coastal field. The UNCHE saw demands from the Nordic countries of Europe for a regional convention to protect the Baltic Sea from pollution (VanDeveer, 2000:12), paving the way for further regional cooperation structures to be set up, incorporating scientific and technical committees and units.

It was also at the UNCHE that the UN Environment Programme (UNEP) was created, which later established the Regional Seas Programme, and both the London Convention (on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter) and MARPOL (the International Convention for the Prevention of Pollution from Ships) gained support from UNCHE.

Furthermore, in common to the social construction of marine or coastal problems and policy responses is the 1982 UN Convention on the Law of the Sea (UNCLOS) which came into force in 1994. This is highly significant in that it provided a new "constitution" for the world's oceans (Cicin-Sain and Knecht, 1998:69), or a framework for ocean governance, covering all aspects of maritime activity such as navigation, fishing, scientific research, dispute resolution, exploitation of the sea bed and environmental protection.

Central to this was the establishment and acceptance of maritime zones, which have been referred to in Chapter Two, namely the high seas, continental shelf, Exclusive Economic Zone, contiguous zones and territorial seas which nations would have jurisdiction over. Nichols (1999:388) states that

> "Most coastal management programmes under development worldwide subscribe to the philosophies and regulatory blueprints that evolved in the late 1980s and 1990s under the coastal branch of the UNCLOS regime".

This is because UNCLOS lays down the obligation of all States to protect and preserve the environment, and empowers States to enforce anti-pollution measures within their territorial seas, often the domain of coastal planners (Ibid, p390). However the requirements of Water Framework Directive 2000/60/EC now mean that River Basin Management Plans must also consider the quality of estuarial waters out to 1 Nautical Mile, highlighting the need for integration across the land-sea divide.

The following sections now examine the development of ICZM, Marine Planning and RBMP based on the prerequisites outlined by John Hannigan (1995, 2006).

3.3.2 Scientific Evidence and Authority for Problems

It has already been noted that early management of the seas was largely concerned with shipping and legal jurisdiction over territorial and open seas, and that actors with scientific authority and the ability to make claims did not emerge until the late nineteenth and early twentieth centuries.

Thus whilst the term marine planning may be relatively new, the scientific basis for marine management can be traced back to the work of oceanographer M.F. Maury (1806-1873), whose observations of ocean winds and currents not only contributed to the science of meteorology but also enabled safer navigation of the seas, with his book *the Physical Geography of the Seas* being of great influence in naval and shipping circles.

Slightly later than this, according to Petts, the organisation of river management in Britain probably began with the creation of the Thames Conservancy in 1857, and inter-basin transfers of water from reservoirs for water supply purposes took place from the 1890s onwards (1987:201).

Whilst these events are quite specific to MP and RBMP, ICZM covers several dimensions of the coastal environment such as the marine, biodiversity, landscape and the built environment, as a consequence the scientific authority for coastal problems and claims comes from a number of sources.

In considering the scientific authority for a coastal problem related to the landward side of the coastal zone, an early attempt to document the changes to land use at the coast was presented by the Council for the Preservation of Rural England in *"The English Coast – Its Development and Preservation"*, which described a "national movement seawards" (1936:3) caused by the increase in car ownership, the growth of the seaside holiday and the invasion of commuters seeking permanent residence in coastal towns.

This pressure resulted in continuous stretches of developed or built up areas and intrusions into previously unspoilt sea frontage. Areas of the coast said to be "in danger of wrongful exploitation" were those outside towns and resorts, where there was either no planning schemes in operation, or controls were lax or non-existent (Ibid, p6).

Further observations of problems in the coastal zone came from the Scott Report (of the Committee on Land Utilisation in Rural Areas, 1941) which observed the increasing demand for recreational developments in rural and coastal areas. The report indicated that if such developments were allowed

to continue being unregulated, this would have serious detrimental effects on Britain's natural heritage. The Scott Report recommended "that the coast of England and Wales should be considered as a whole with a view to the prevention of further spoliation" (Stamp, 1964, in Steers, 1964:xxiv).

A more scientific study of the coast was commissioned by the Ministry of Town and Country Planning and carried out by geomorphologist J.A Steers, who noted that

> *"a proper physiographical appreciation of our coasts is the necessary foundation of comprehensive planning"* (1964:*xx*)

Steers cites the work of H Valentin on the erosion of the Holderness coast in the East of England, where the building of a promenade at Bridlington caused dunes to accumulate in front of the adjacent cliffs, preventing substantial erosion, whereas further south there was more serious retreat. Despite Steers' calls for action to prevent further damage to the coast by inappropriate development, no specific coastal management programme was undertaken at this time (Ballinger, 1999:505).

In terms of planning for river catchments, the initial scientific authority and recognition of the problems of river pollution and its effects downstream came from the 1971 Department of the Environment and Welsh Office's *Report of a River Pollution Survey of England and Wales 1970* (1971) and was shortly followed by the Royal Commission on Environmental Pollution's *Third Report on Pollution in Some British Estuaries and Coastal Waters (1972)*, which picked up on the findings of the 1970 Department of the Environment survey, pointing to the decline in the state of tidal rivers and noting that:

> "A great deal of pollution ends in the sea… Some reaches the sea through rivers" (RCEP, 1972: paragraph 6)

One of the main contributors to river pollution during the 1970s and 80s was agriculture. A report by the Advisory Council for Agriculture and Horticulture (ACAH) and the Ministry of Agriculture, Fisheries and Farming (MAFF) in 1975 recognised the "deficiencies" in information on pollution caused mainly by effluent handling practices, and it was also noted that the catchment-wide water authorities established by the 1973 Water Act were more concerned with water supply and sewage treatment than river quality (Ward *et al*, 1995).

Thus the systematic recording of agricultural pollution incidents and monitoring only began in the 1980s, and the collection of water quality data as a whole was improved by the enforcement of

Section 41 of the Control of Pollution Act, requiring Water Authorities to maintain public registers of their own effluents, and these Authorities also chose to include data on river quality, groundwater and effluents from other sources (Brewin and Martin, 1987:262).

The policing of water quality standards in the England and Wales by the Environment Agency (formerly the National Rivers Authority) and in Scotland by the Scottish Environmental Protection Agency, provides continuous scientific authority for claims of inland and fresh water pollution incidents. Whilst these organisations are what is known as non-departmental public bodies (NDPBs), they are recognised as an executive arm of government, in many cases acting as the "competent authority" for delivering works required to meet European environmental standards. This status allows the Environment Agency (and SEPA) to be viewed as a "reliable" source of scientific evidence for catchment problems.

It is pertinent to note here that under the requirements of the Water Framework Directive, the classification of water bodies had to be completed by Member States in December 2004, and for the UK this work was undertaken by the UK Technical Advisory Group (UKTAG). In relation to this, Newig *et al* (2005) observe that this relatively rapid assessment of water bodies has consequences in terms of lacking knowledge about the present and future conditions of the water bodies, and about the causal relationships regarding the origins of pollution (Newig *et al,* 2005:336). Whilst this uncertainty may give rise to a precautionary approach, Newig *et al* also go on to note that the text of the Water Framework Directive does not refer to uncertainty, preferring the term "adequate level of confidence and precision" (Ibid., p337). This itself may be difficult to define, and therefore create further difficulties in decision making, but may be achieved through opening up public participation to include knowledge of local environmental problems and knowledge of what may be socially or politically acceptable solutions.

Beyond the UK government's early attempts to measure environmental conditions in the coastal zone, the Post-War period saw a proliferation of international scientific and technical organisations with an interest in the coastal environment, such as the World Conservation Union (IUCN), established in 1948, which has compiled a "Red List" of endangered species for over 40 years, the World Wide Fund for Nature (WWF), which began life as a conservation organisation in 1961 and has extended its activities to include research and policy advice, the Marine Environmental Data Inventory (MEDI, operating since 1979 as part of UNESCO's

Intergovernmental Oceanographic Commission), and the organisations established as part of the UNEP's Regional Seas Programme.

In Europe, where regional seas cooperation is relatively well established, the Regional Seas Programme action plans have focused mainly on pollution issues containing an element of environmental assessment, including activities such as Environmental Impact Assessment (EIA) and monitoring, which aim to assist in environmental management decisions by allowing:

> *"National policy makers to manage their natural resources in a more effective and sustainable manner and to provide information on the effectiveness of legal/administrative measures taken to improve the quality of the environment"* (UNEP, 1991, in Dixon-Gough, 2001).

The European Environment Agency, which was established in 1990 by *Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network* and began work in 1994 on providing sound environmental information to the EU and other Member Countries such as Norway and Iceland has highlighted the impacts of human activity on the seas. The EEA's regular *State of the Environment and Outlook* reports have identified areas of concern for coastal management at an international scale, and Van Buuren *et al* (2001) point to regional sea conventions on pollution prevention such as OSPAR for the North East Atlantic and HELCOM (Baltic Sea) as major contributors to EEA reports through their own systems of monitoring and reporting (2001:89). Indeed, the OSPAR Commission's own Ecological Quality Objectives (EcoQOs), developed in collaboration with the International Council for the Exploration of the Seas to provide a link between policies and ecological indicators have been taken on board by the European Union as examples of objectives and associated indicators to be developed further under the Marine Strategy Framework Directive (Helsenfeld and Enserink, 2008:1393).

In addition, the International Council for the Exploration of the Seas definition of the ecosystems approach provides the dominant framework for marine management activities, and underpins the UK government's approach to marine stewardship as outlined in *Safeguarding Our Seas: a Strategy for the Conservation and Sustainable Development of Our Marine Environment* (DEFRA, 2002). *Safeguarding Our Seas* notes that previous attempts at marine management have been sectorally based (Ibid, p7) and uncoordinated, with scientific evidence for marine problems only referred to at times of crisis (Peel and Lloyd, 2004:365). Thus more integrated and collaborative programmes of marine science have been

proposed, that, as well as establishing an evidence base to support the development of policy, outputs from government marine science programmes feed into the wider development of marine science (DEFRA, 2002:70).

More recently the European Union, whose vision for a future maritime policy (as set out in its *Green Paper - Towards a Future Maritime Policy for the Union*) rests on the twin pillars of convergence of objectives with the Lisbon Strategy (for growth and better jobs within the Union) and the maintenance and improvement of the ocean resource will also have implications for marine science. The Green Paper states that ecosystem based management, built on scientific knowledge is essential to the protection of the oceans (CEC, 2006:5), whilst innovation in marine technologies such as energy, transport and coastal engineering will not only boost competitiveness in the maritime sector, but also contribute to the marine knowledge base and sustainability of the seas.

The instruments used to promote a more robust evidence base in the UK include networks of marine conservation science organisations such as the Joint Nature Conservation Committee (JNCC), the Inter Agency Committee on Marine Science and Technology (IACMST) and the Marine Information Council, bringing together government agencies, academia, NGOs, the private sector, local and international institutions. Specific techniques such as sea bed and habitat mapping, strategic environmental assessment (SEA) and environmental impact assessment (EIA) have also contributed to the marine evidence base.

The Joint Nature Conservation Committee (JNCC), which is a statutory adviser to the UK government and the devolved administrations, has had a considerable influence on marine planning through its *Review of Marine Nature Conservation.* The Review was established in 1999 by DEFRA, to examine how effectively the UK system for protecting nature conservation in the marine environment is working and make proposals for improvements. A number of thematic reports on, for example, draft criteria to identify nationally important marine nature conservation features (Connor *et al,* 2002), a review of literature on human impacts on the UK's marine environment (Laffoley, 2000) and an Irish Sea Pilot Study to test JNCC's proposed marine conservation framework for the UK and the adjacent waters of the North East Atlantic contributed to DEFRA's *Review of Marine Nature Conservation: Working Group Report to the Government* (DEFRA, 2004).

In its conclusions, the *Review of Marine Nature Conservation* found that "*the current system for marine nature conservation... is not fit for purpose. It does not provide the means to apply the ecosystem approach which is central to the marine stewardship process and fundamental to delivering the Government's vision for the marine environment of 'clean, healthy, safe, productive and biologically diverse oceans and seas'. Nor will it allow Government to meet its international obligations." (DEFRA, 2004:ii)*

Amongst the many recommendations that came out of the Irish Sea Pilot and the final report, most importantly, there was a recommendation that the UK government should undertake a trial of Marine Spatial Planning at the regional sea scale to determine the effectiveness of applying such an approach across all UK waters to deliver coordinated nature conservation (Key Recommendation 7). In addition, and of particular relevance to the use of scientific evidence in the construction of marine problems, attention was given to the appropriate scales at which ecosystem management should be carried out (i.e. adopting and applying the marine nature conservation framework of Wider Sea, Regional Seas, Marine Landscapes, important marine areas, and priority marine features in UK waters, Key Recommendations 2-5), developing procedures to assess the impact of human activities at each level of the marine nature conservation framework and to assist in the determination of the appropriate level of response (Key Recommendation 10) and information gathering and exchange (establishing a coordinated UK-wide marine information network, Key Recommendations 12-13).

Yet despite the vast body of knowledge already accumulated about the oceans and seas, Peel and Lloyd argue that the complexity of the marine environment, the mixture of conflicting interests, rules and rights means that as yet there is no real consensus on the nature of the marine problem or on how it "should" be addressed (2004:366). Similarly for ICZM, the landward element of coastal zones adds to the complexity of defining a single coastal problem. Thus it can be said that the scientific authority element in the social construction of the marine or coastal problem has only been partially achieved.

In concluding this section, it may be said that it is international environment and development organisations such as the UNEP, World Bank and supra national governments such as the European Union which have provided the initial injection of resources needed to operate research and policy programs which have acted as a source of scientific authority for coastal and marine problems and also acted as popularisers, whilst for catchment problems, most scientific evidence has come from national and more local-level observations. It is also pertinent to note that the idea of "scientific" authority here

also conforms to a highly technical, rational approach to defining problems, with instruments such as Environmental Impact Assessment providing an apparently value-neutral evidence base from which decisions can be made. The interpretation of such evidence therefore requires the use of one or more of Hannigan's other prerequisites to translate this information into a claim for a problem.

3.3.3 Popularisers, Dramatisation and the Media

This section begins with coastal problems as they tend to have had the longest and most complex history in terms of popularisation and media exposure. According to Ballinger, in the Post-War period coastal matters became subsumed within much larger scale economic, social and administrative reconstruction processes as a comprehensive system of town and country planning became established (1999:505-6). With the creation of National Parks, following the National Parks and Access to the Countryside Act of 1949, planning for coastal areas became a facet of landscape protection and conservation.

Whilst coastal protection maintained a high profile within bodies such as the National Parks and the National Trust, the popularisation of land use planning as a means of managing the coastal zone was slow to occur. Ballinger (1999:506) points to the narrow focus and limited remits of the statutory bodies engaged in coastal conservation as the main reason for the lack of progress in developing a more holistic approach to management.

During this period of fragmented organisation, which lasted into the late 1980s, the Countryside Commission published *The Planning of the Coastline* (1970a), an examination of coastal preservation and development, and its companion document *The Coastal Heritage* (1970b), which provided recommendations on improving planning policy for the coast. In *Planning for the Coastline* the Countryside Commission recognised that conferring uniform protection to the entire coastal belt resulted in weak, ambiguous policies that were difficult to implement (1970a:7). Therefore it recommended:

- Division of the coast into zones, each with their own policies,

- Management agreements with landowners where potential uses were not subject to statutory planning controls, e.g. recreational uses, and

- The designation of Heritage Coasts of high quality scenery, which would be subject to stricter planning control.

However for the reasons outlined by Ballinger (1999) above, the only recommendation of the Countryside Commission to be acted upon was that relating to the designation of Heritage Coasts, which were put into operation from 1972 onwards.

In parallel with the endeavours of European States for greater cooperation on coastal issues, American academics, environmentalists and scientists began to consider "the coast" as a definable entity rather than a frontier transition zone between land and sea (Nichols, 1999:388).

However it was not until countries began preparations for the UN Conference on Environment and Development (UNCED) in 1992 that integration became an important feature of CZM. The term "integration" had been part of coastal management discourse since the launch of the Regional Seas Programme in 1975 yet remained ambiguous (Kenchington and Crawford, 1993, in Nichols, p393), although it was used increasingly in describing the more comprehensive systems of coastal area management that were being developed.

The most important populariser for ICZM came from the UNCED at Rio de Janeiro in 1992. Of all the outputs of the Rio conference, (including the Rio Declaration on Environment and Development, the convention on Climate Change, the Convention on Biological Diversity and the Statement of Forestry Principles), the most significant for the field of coastal management came through Chapter 17 of Agenda 21.

Rio and other UN conferences have brought forward the concept of reconciling economic growth and environmental protection as "sustainable use" (Dixon-Gough, 2001:58), which provides a broad framework for developing coastal and marine management systems.

Agenda 21 was ambitious in scope, covering all aspects of the environment, development and society, and the importance of coastal issues was reflected in the fact that Chapter 17, titled *"Protection of the Oceans, All Kinds of Seas, Including Enclosed and Semi-Enclosed Seas and Coastal Areas and the*

Protection, Rational Use and Development of Their Living Resources" was the longest of the 40 chapters in the document.

Chapter 17 of Agenda 21 made a strong commitment to achieving sustainable development for marine and coastal environments, stating that:

> *"This requires new approaches to marine and coastal area management and development, at the national, sub-regional, regional and global levels, approaches that are integrated and are precautionary and anticipatory in ambit"* (UNCED, 1993:paragraph 17.1).

Furthermore, Programme Area A for Integrated Management and Sustainable Development of Coastal and Marine Areas, Including Exclusive Economic Zones, called on states to:

- *Provide for an integrated policy and decision making process, including all involved sectors, to promote compatibility and a balance of uses (Ibid, paragraph 17.5(a)).*

And for:

- *Integration of sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries affecting the coastal area (Ibid, paragraph 17.6(i)).*

It was also in 1992 that the Commissions of the Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (Oslo Convention) and the Convention for the Prevention of Marine Pollution from Land-Based Sources (Paris Convention) met and adopted a new Convention for the Protection of the Marine Environment of the North-East Atlantic (the "OSPAR Convention"). The newly established OSPAR Commission gave a new impetus to protecting coastal and marine environments, adopting strategies for ecosystem and biodiversity protection, the reduction of hazardous and nuclear substances, and prevention of eutrophication in the coastal waters of its Contracting Parties.

In the UK, the case for an updated system of coastal planning was clearly made, following concerns expressed by bodies such as the RSPB, the Marine Conservation Society and the Countryside Commission about the effects of human activity on the coastal environment and the perceived inadequacy of existing administrative arrangements to protect it (Gibson, 2003:118).

The 1992 House of Commons Environment Select Committee Report on Coastal Zone Protection and Planning, which examined policies and responsibilities for planning and protecting the coastal zone was highly critical of the existing planning and management regimes, noting the

> *"inadequacies in legislation, anomalies in the planning system, a lack of central guidance, and overlapping and conflicting policies and responsibilities (and in some cases a lack of action) among a host of bodies with poor coordination between them"* (1992: paragraph 3).

The Select Committee made several recommendations relating to coastal management, and most notably for land use planning, the definition of the coastal zone (as an integrated unit) for the purposes of producing a national coastal strategy was proposed. This fed into the preparation of *Planning Policy Guidance Note (PPG) 20: Coastal Planning*, requiring planning authorities to consider their own definitions of the coastal zone based on physical features and natural processes, and, more importantly, to recognise that on-shore development can often have an impact off shore (Department of the Environment, 1992:5). Likewise, the environmental impacts of development outside the coastal zone on the coast must also be considered.

A further driver of change in the UK's coastal management framework was the EU's Fifth Environmental Action Plan, which was prepared in parallel with the main Rio agreements so that it shares most of their strategic objectives and principles (Wilkinson, 1997:158 in Connelly and Smith, 2003). The Plan was adopted in 1993, and although not binding, included a commitment to explore ICZM from a European perspective (Allmendinger *et al*, 2002:176). This was achieved through a Demonstration Programme on ICZM, comprising of 35 coastal management projects around Europe, including the Forth Estuary, Kent, Dorset and County Down coasts and the Isle of Wight in the UK.

The Demonstration Programmes illustrated (to governments of Member States) that in complex areas, uncoordinated policies could conflict or work at cross purposes (DEFRA p7 paragraph 3.5). This and other lessons from the Demonstration projects formed the basis of the eight ICZM principles advocated in the EU's *Recommendation 2002/413/EEC Concerning the Implementation of ICZM,* the current driving force for ICZM initiatives across the EU.

Although developing at a much later stage, a great deal has been done to promote marine issues and push them into public view. For example, the Marine Conservation Society (founded in 1979 as the Underwater Conservation Society) was established by members of the diving community with an

interest in the conservation of the seas and marine wildlife, and now has a regular presence in Whitehall and Westminster.

Themed "years" of the Coral Reef (1997) and the Ocean (1998) designated by America's National Oceanographic and Atmospheric Administration (NOAA) and with international support have also helped to place marine conservation issues in the media spotlight and educate the public as to the importance of such ecosystems.

Other means of popularising the marine problem have come from both NGOs and the state, for example the World Wide Fund for Nature (WWF) acts as a research based populariser (Peel and Lloyd, 2004:367), whose Global Marine Programme uses marine scientists and other technical and policy experts to develop solutions for sustainable fishing and the creation and management of Marine Protected Areas. Marine Spatial Planning is also called for by the European Commission in the Maritime Green Paper in order to help safeguard marine resources (EC, 2006:10) and plan for economic activity (Ibid, p21), whilst early investigation into the potential role of Marine Spatial Planning for integrating marine policies was proposed by DEFRA in *Safeguarding Our Seas* (2002:3). These examples demonstrate that, unlike for ICZM where popularisers have tended to come from government and represent a broad sustainable development policy agenda, marine popularisers have focused their discourse much more on conservation issues and ecosystem integrity.

For river basin management and planning, within the UK the government's own activities through research such as that by the Royal Commission on Environmental Pollution and the Environment Agency has provided a sound evidence base for advocating river basin management or catchment planning. At the European level, early concerns about groundwater, drinking and bathing water quality and subsequent Directives have helped to promote water management issues, albeit in a more piecemeal fashion to Member States.

Media events or images that dramatise the need for ICZM, MP and RBMP are difficult to define as so many images or newsworthy incidents may be symptomatic of other problems or demonstrate the need for other environmental management regimes, for example images such as the Holbeck Hall Hotel in Scarborough collapsing into the sea following heavy rain and landslides in 1993[3] could be used to argue the point for better coastal defences or managed retreat as part of Shoreline Management Plans, or

[3] See http://www.bgs.ac.uk/science/landUseAndDevelopment/landslides/holbeckHall.html

demonstrate a failure of terrestrial spatial planning, whilst the grounding of the MSC Napoli in Lyme Bay in 2007 and the subsequent scramble for its valuable cargo which washed up on the shores of Branscombe became headline news although the fundamental problem was the failure of the ship's structure to withstand extreme weather conditions[4].

Brown *et al* (2002) cite the discovery of Seahenge, a Bronze Age monument made of a series of oak trunks arranged in a circle around a central stump just off the coast of Norfolk as representative of the conflicts inherent in managing the coastal zone. Seahenge was revealed in 1998 due to the tide eroding dunes and overlying sediment, and, once exposed to air, the timbers became at risk from drying out and crumbling. Archaeologists, land owners, local residents and even Druids expressed concern over the fate of Seahenge, arguing over whether it should be removed for scientific analysis, whether to leave the site intact, and the impacts of increased tourist visitors to the site. Eventually the timbers were removed, but this incident highlighted the contested nature of coastal resources, conflicting values and interests and the importance of having an institution to mediate in such disputes.

One organisation that has successfully dramatised the marine problem or various aspects of it, such as whaling and over-fishing, and secured a great deal of media attention is Greenpeace. Through its use of direct action tactics such as the 1995 boycott of Shell garages and occupation of the Brent Spar oil platform in the North Sea (which was due to be disposed of by being sunk in the deep waters of the North Atlantic), Greenpeace has achieved considerable recognition for its ability to change attitudes and policies.

In the case of the Brent Spar, media and public pressure forced Shell to withdraw its plans for dumping the Brent Spar platform at sea but this incident also raised questions about Greenpeace's ability to manipulate the media, as their estimates of the level of toxic waste on board the platform was grossly overestimated. Thus their scientific authority for making claims about the potential environmental threat was undermined and the incident also damaged their credibility with those media outlets whose support Greenpeace relied on to communicate their claims (Connelly and Smith, 2003).

Dramatic incidents play a continuing role in highlighting various aspects of the marine problem, such as the 1989 Exxon Valdez oil spill off the coast of Alaska which killed between 250,000 and 500,000 sea birds, and the "ghost ships", old US Navy vessels that were brought to Hartlepool in North East England

[4] See the Marine Accident Investigation Branch report on the MSC Napoli at http://www.maib.gov.uk/publications/investigation_reports/2008/msc_napoli.cfm

in 2003 to be broken up but remained moored and untouched as permissions needed to complete the works were not granted until 2008 after extensive negotiations with the Environment Agency.

As mentioned before, river management in the UK began with the Thames Conservancy in 1857, as a response to the problems of industrial pollution and the increasing amounts of sewage being piped into the Thames. The results of this pollution culminated in the "Great Stink" of 1858, which caused sittings at the House of Commons to be abandoned and generated much media attention at the time.

One of the major modern environmental threats to river catchment ecosystems that have captured media attention very successfully is acid rain. Although the problem was first noted by British scientist Robert Angus Smith in 1852, it was not until the late 1960s that the problem began to be popularised by a Swedish soil scientist, Svante Odén. After comparing his own data on bodies of fresh water, soils air pollution and the chemistry of rain with that of a fisheries inspector and concluding that "acid" rain could have serious implications for fish stocks and crop yields, Odén was compelled to publish his findings in a national newspaper (*Dagens Nyheter, 24th October, 1967)* rather than a scientific journal, thus bypassing other channels through which environmental claims may be made (such as conferences and parliamentary reports) (Hannigan, 2006:101). This had the effect of bringing acid rain to the attention of the Swedish government and public five years before the issue was raised at the UN Conference on the Human Environment.

In the 21st Century, river pollution incidents such as the cyanide spill at Baia Mare, northwest Romania in early 2000 continue to attract media attention. In the Baia Mare case, a break in a dam holding back contaminated waters from a metal recovery plant released liquid containing 50-100 tonnes of cyanide into the Sasar River, a tributary of the Danube. This affected approximately 2000 km of the Danube's water catchment in Romania, Hungary and Serbia, causing interruptions to the water supply of 24 Romanian municipalities and killing approximately 1240 tonnes of fish in Hungary (RECCEE, 2000).

Communications between neighbouring countries alerting them to the threat of river pollution from upstream, not only served to inform the environmental authorities of the need to take precautionary measures but also dramatised the incident by way of portraying an approaching danger spreading along the river, with the initial spill plume taking around four weeks to travel downstream to the Danube delta.

It is through dramatic incidents such as the cyanide spill at Baia Mare and the media coverage given to the effects of acid rain that the public and non-scientific institutions can begin to understand the concept of catchment wide water management and environmental protection. By demonstrating that an environmental problem has implications throughout an ecosystem (i.e. the catchment or river basin), rather than occurring within a discrete spatial unit, the media, popularisers and dramatisation of environmental problems in this case support the need for an ecosystem based approach to fresh or inland water management. Gouldson *et al,* reviewing water policy instruments in the UK, also found that the media can play an important role in raising the consequences of withdrawal from or non-adherence to an agreement once it has been reached, thereby communicating how the enforcement of water policy and negative consequences of non-compliance may motivate the implementation of water protection measures.

Popularisers, the media and dramatisation thus provide several different avenues for bringing environmental problems to the attention of a wider audience and shaping the discourse around potential solutions. Given the way that these three factors or prerequisites often go hand in hand, it may be difficult to establish which component has the most influence on the way stakeholders construct problems, particularly where dramatic incidents force an immediate response which sets the tone or direction of future discussions. Similarly, popularisers and the media have the potential to distort or manipulate stories and events (as was evidenced by the Napoli disaster), in a way which focuses attention on a particular aspects of a problem and potentially disregards or closes off other possibilities for understanding the more fundamental nature of the issue at hand. Such issues require a more gradual process in which a number of alternative perspectives can be heard without undue prominence being given to one voice.

3.3.4 Economic Incentives and Institutional Sponsors

As is often the case with environmental issues, the European Union has emerged as the main institutional sponsor for both river basin planning and ICZM. In the case of RBMP, the EU's actions build on a number of older water quality regulations such as for Nitrates (Directive 91/676/EEC on Nitrates from Agricultural Sources) and the Treatment of Urban Waste Water (Directive 91/271/EEC).

For ICZM, the *Recommendation 2002/413/EEC* provides a framework for implementation, however Regional Sea secretariats, for example HELCOM (the Helsinki Commission) for the Baltic Sea and OSPAR for the North East Atlantic established prior to the Recommendation also represent institutional sponsors in their associated regions and provide additional drivers for integrated coastal and marine management. Reference has been made in section 3.3.2 to the OSPAR Commission's scientific contributions to the development of European environmental initiatives such as the Marine Strategy Framework Directive, and OSPAR has also made a commitment to support the development of marine spatial planning which takes into account coherence between terrestrial and maritime planning using ICZM (OSPAR Commission, 2009:16).

Within the UK, DEFRA is the main sponsor of ICZM for England, having signalled its commitment to ICZM through *Safeguarding Our Seas* (DEFRA, 2002), the national ICZM Stock Take (Atkins, 2004) which was required as part of moving towards the development of a national ICZM strategy, and more recently producing the national strategy itself (DEFRA 2009), , although many of the landward coastal management activities fall under the auspices of the terrestrial spatial planning system which is overseen by the Department for Communities and Local Government.

The Local Government Association's Special Interest Group on Coastal Issues (LGA-SIG), which is comprised of elected members from coastal local authorities, has also acted as an institutional sponsor for ICZM in England. Noting the need for a response to the EU's ICZM Demonstration Programme and Recommendation 2002/413/EC, LGA-SIG published *"On the Edge – the Coastal Strategy"* (LGA 2002), which called upon the government to review planning policy guidance and create a Coastal Commission that would produce a national strategy for England's coasts. The LGA-SIG currently maintains a role in promoting ICZM within local planning authorities and lobbies government on behalf of coastal communities. The devolved administrations have also acted as sponsors in their own right or through links with the Wales Coastal and Maritime Partnership or the Scottish Coastal Forum.

The EU's history as an institutional sponsor of water policies can be traced back in the case of RBMP to the early 1970s. Following two "waves" of EU water policy in which the EU moved from public health protection (1973-86) to pollution control (1987-1992) and gained increasing competency for environmental policy (Kallis and Butler, 2001:126-7), the European Parliament and Council of Ministers pressed the European Commission for a more integrated approach to water policy. This resulted in the *Proposal for a Council Directive Establishing a Framework for Community Action in the Field of Water*

Policy (COM (97)49), which aimed to bring together what was considered to be fragmented legislation for water protection under a single piece of framework legislation which covers surface and ground water protection, achieving "good status" for all waters, fair water pricing, citizen involvement, and taking an integrated approach to water management based on the hydrological unit of river basins.

Drafting of the WFD took place with significant input from environmental NGOs, public and private sector water suppliers, the chemical industry, Member States, local authorities and others, each with their own particular interest in the final text of the Water Framework Directive. For example the RSPB was concerned about the Directive's effects on wetlands. Even within the institution of the EU, tensions were visible between the European Parliament and Council of Ministers, who supported stricter (EP) or more lenient approaches (CM) to environmental protection requirements and the implementation of the WFD (Kaika, 2003:308). Directive 2000/60/EC finally came into force in December 2000.

At the current time, Marine Planning as it is being implemented in the UK lacks a European sponsor, and so DEFRA, as authors of the Marine and Coastal Access Act are the most obvious, and as the production of Marine Plans begins under the duties of the MMO (in England) this can be expected to take on the lead role of institutional sponsor. NGOs have also been significant in making calls for Marine Planning, with the Marine Conservation Society, the Wildlife Trusts, Environment LINK, Greenpeace and the RSPB all contributing to the Marine Bill White Paper consultations in support of different measures that were proposed in the Bill (see DEFRA, 2007b).

Others that may support the establishment of MP and have a role to play in shaping what is implemented include the Crown Estate, as owner of the sea bad and regulator of fisheries, and the National Trust, a major coastal landowner. Natural England may provide institutional sponsorship for MP, but Natural England's remit at present (to conserve and enhance biodiversity, sustainable use of the natural environment) does not support the mix of competing and conflicting interests in the marine environment, nor does Natural England have the statutory powers necessary to manage or control the full range of marine activities.

Until quite recently, there has been a perceived lack of economic incentives for ICZM in the UK. As *ICZM Recommendation 2002/413/EC* is non-binding, the voluntary basis for ICZM has meant there is no obvious economic benefit or disincentives for taking up this system of management. Where ICZM is taken up by coastal partnerships, funding is low level and inconsistent. Despite this, a report in 2008 by Entec Consultants for DEFRA, the Local Government Association's Coastal Special Interest Group and the

Coastal Partnership Working Group on *the Financial Benefits to Working in Partnership at the Coast* (2008) did provide some examples of savings and benefits that can be gained when stakeholders use the services offered by coastal partnerships, for example consultancy on compliance with environmental legislation, and improved business opportunities through networking at partnership events and marketing.

Whilst the Entec report may be viewed as a positive step in advocating coastal partnerships and ICZM as a way of working, it came at a time when discussions on the Marine Bill were under way and attention was turned to the role of the Marine Management Organisation as the future lead organisation for coastal management. Therefore at this time the existing coastal partnerships act as chief popularisers and institutional sponsor of management for the coastal zone, with central government (through DEFRA) attempting to find a role for coastal partnerships within the system of Marine Planning, both for stakeholder engagement purposes and in developing plan policies. DEFRA's latest consultation on Marine Planning states that:

> *"As well as working with terrestrial planning authorities, the MMO should work closely with the Environment Agency, Natural England, JNCC, English Heritage, IFCAs, the Crown Estate, Coastal Partnerships and many other coastal stakeholders to integrate management of the seas with land planning."* (DEFRA 2010b:60)

Like terrestrial spatial planning, a statutory system of MP may provide no real economic incentives – indeed Peel and Lloyd state that "*greater attention may have to be paid to a more explicit architecture and grammar of appropriate economic incentives to support MSP intervention*" (2004:369). However, in the UK government's most recent sustainable development strategy, *Securing the Future*, under the principle of "Achieving a Sustainable Economy" the government aims to ensure that efficient resource use is incentivised (HM Government, 2005:16). Thus the development of economic incentives may become more important as MP is implemented. Streamlined licensing arrangements for dredging, harbour development and offshore renewable energy under the Marine and Coastal Access Act may provide indirect incentives for industry through increased certainty in decision making, and the rationalisation of bureaucracy will have benefits for the licensing authorities.

In terms of economic incentives for river basin planning, the main benefits cited for implementing the WFD include the gains to be made from tourist and recreational activities that are dependent upon clean water such as angling. The Directive's requirements for adequate water pricing (charges made to

consumers for water), although intended to encourage more prudent and sustainable use of water resources, may be seen as a burden in some cases. Page and Kaika (2003) note that the concept of water pricing was in fact alien to some Member States before the Directive came into effect, citing the example of Ireland, where domestic water is supplied free and costs recovered through taxation (2003:332. Water pricing and other WFD measures were also of concern for the agricultural sector, where any potential increase in the price of water and additional expenses related to preventing diffuse pollution will affect the production cost and selling price of goods (Kaika, 2003:307), and the chemical industry argued that absorbing the costs of environmental protection would "reduce their competitiveness" (Page and Kaika, 2003:337).

Overall, the effectiveness of economic incentives for the WFD remains to be tested. Water pricing requirements have only just come into force in 2010, and the deadline for water bodies in Member States to reach at least "good" status is 2015. Failure to comply with environmental objectives should incur financial penalties, however until such penalties have to be applied it will not be possible to assess what effect they or other economic incentives contribute to making a claim for catchment problems and the implementation of the WFD.

Economic incentives for coastal planning regimes appear to be difficult to define, considering that first, it may be difficult to isolate the source of a problem when looking at an ecosystem as a whole, particularly where pollution is diffuse and may be the legacy of years of poor environmental management. Secondly, many of the returns on investing resources in some form of coastal management are intangible – for example cleaning up or preventing pollution may improve the environment which in turn can increase recreational use of waters, benefiting local economies through tourism and associated activities, or simply save more expensive remedial work in years down the line. For RBMP penalties for non-compliance will encourage positive action, although such legal actions may be seen as a cost to be avoided rather than an additional source of income to stakeholders.

One final point may be considered in relation to economic incentives for taking action in all three regimes, and this is the developing concept of valuing ecosystem goods and services, which are defined as the benefits people obtain from ecosystems, including food, water, natural flood relief, nutrient recycling and other non-material benefits (Millennium Ecosystem Assessment, 2005).

In 2007 DEFRA noted in its *Introductory Guide to Valuing Ecosystems Services* that the benefits the natural environment provides are not yet valued properly in policy and project appraisal across

government (2007c: 2), and so called for the valuation of ecosystem services in order to ensure that policy appraisals fully take into account the costs and benefits to the natural environment, and to provide evidence that can underpin the development of future decision making tools and policy instruments (Ibid, p13). For the proposed Marine Bill, a valuation of ecosystem services related to the nature conservation measures of the Bill was undertaken by the Scottish Agricultural College and the University of Liverpool and found that the creation of Marine Conservation Zones would bring environmental benefits in the region of £8.6bn - £19.5bn over twenty years (DEFRA, 2008). Whilst this was based on proposed rather than a finalised network of MCZs, and does not include benefits of the wider system of Marine Planning, it does demonstrate some economic incentives for marine conservation. As yet there has been no similar valuation of ecosystem services in relation to river basin districts, or coastal zones given that they are difficult to isolate, however as techniques for ecosystem valuation become more sophisticated it is anticipated that this approach will become more prevalent in articulating claims for particular actions to be taken.

3.4 Analysis – Drivers for the Social Construction of Different Planning Regimes

The information presented above relating to the social construction of coastal, marine and catchment problems highlights several interesting points, not only in terms of the historical development of each regime, but also in the use of Hannigan's model as a framework for understanding how an environmental problem is defined and brought to attention, and both of these aspects will now be commented upon.

Firstly, in trying to trace the development of coastal planning regimes from a historical perspective, it must be noted that man's relationship with water or the sea reaches back much further than any formal establishment of rights and responsibilities, and takes on different forms depending on locally specific circumstances. This long and varied history therefore makes it a complex task to determine the origins of different constructions of the coastal, marine or catchment environments.

Considering each of the regimes in turn, starting with ICZM, the review above shows that whilst there has been a considerable amount of research on different problems of the coast, such as erosion and sediment movement, the intensification of land use and the loss of biodiversity, and much of this

information has come from "credible" sources such as the UN Environment Programme and other international environmental bodies, academics such as J.A. Steers and even reports commissioned by national government, this body of evidence as a whole has not been brought together to produce a strong, unified claim for a coastal problem. Similarly, media coverage, dramatic incidents and popularisers have only provided a narrow perspective on coastal issues, highlighting a limited number of symptoms.

In this sense the recognition or social construction of a coastal problem does not fully adhere to the principle of a holistic perspective as outlined in *ICZM Recommendation 2002/413/EC.* Indeed Midlen observes that in policy terms, the coast as a cohesive entity with its own problems is sidelined in favour of visions for the marine and terrestrial (rural) environments (see *Safeguarding Our Seas,* DEFRA, 2002, and the Countryside Agency's "*2020 Vision",* 1999) which fail to interpret policy in a specifically coastal context (2006:v), thus leading to a call for the coast to be made more "visible" in mainstream policy. Such a perspective would require a substantial debate and reconstruction of the "coastal zone" concept, and given the ambiguous nature of this transitional zone such a debate may never be resolved. On the other hand, attempts at spatial integration focused on overcoming the pre-existing divisions between land and sea may be more possible through interaction between coastal stakeholders and plans or policies that take into account the impacts of sea use on the land and vice versa.

The influence of economic incentives appears to be quite low in socially constructing a case for ICZM – a point which may again be linked to the difficulties of combining information about land and marine based coastal activities, and given that the magnitude of the effects of climate change are still very much contested, it is difficult to anticipate the future costs of climate change impacts on coastal zones, although the *Stern Review of the Economics of Climate Change* (2006) provides a clear message that the benefits of strong, early action on climate change outweigh the costs.

It is the institutional sponsors for ICZM that may give most insight into the reasons why this regime has not achieved statutory status and subsequently experienced implementation "failures". Referring back to the points made in Chapter Two regarding how communicative planning approaches help to build the legitimacy of subsequent actions, and the hollowing of the state in which powers may be transferred upwards or downwards from central government, it may be observed that institutional sponsors for ICZM have originated at the international level (for example in the UN and European Union), and their

calls for action at local levels have actually mobilised considerable support in the form of coastal partnerships.

Whilst a form of ICZM was being advocated at international level as part of the UN's Agenda 21, the UK government's rejection of the recommendations made in the House of Commons Environment Select Committee on Coastal Protection and Planning in the same year effectively closed off one avenue of discussion about the use of ICZM at national level, and with the Estuaries Initiative first being perceived to have an environmental focus (see Morris, 2008) and second not considering an explicit coastal zone, it was not until the EU Demonstration Programmes began in 1996 that ICZM really achieved prominence on the political agenda again. With the Demonstration Programme, again, institutional sponsors at the international level were at the forefront, and the implementation of projects at local levels may have bypassed some of the potential debates about ICZM that were required at national level to gain further legitimacy and support for a statutory system of ICZM. The government's adoption of *ICZM Recommendation 2002/413/EC* in 2002, at the same time as *Safeguarding Our Seas* thus demonstrated a growing awareness in national government of the need for ICZM, however whilst DEFRA (and previous incarnations of the Department of the Environment such as DETR) have facilitated ICZM actions at the local level through the funding of projects, their own actions on ICZM specifically have remained one step behind the capacity that has been built at local and regional level.

For the social construction of a marine problem, again scientific evidence is a key driver of problem recognition, and in this case the distinct spatial boundary of the marine environment provides a much clearer focus for action. International organisations are also central to the construction of the marine problem, although in this instance there appears to be a greater orientation towards marine conservation, with NGOs at national level such as the Marine Conservation Society and WWF acting as chief popularisers (outside government) for a form of marine management.

Although it has been noted that use of the media and dramatic incidents may have resonance for the construction of both coastal and marine problems, it is questionable how much influence these events have on the long term perception of an issue and potential solutions given that the media is constantly bringing new stories to attention and can quickly drop its interest in an issue when another story comes along, for example the "ghost ships" were headline news at the time when they were being brought to the UK, however the protracted legal wrangling over their eventual fate has failed to generate the same level of national interest. This is partly because such events do not lend themselves well to dramatic

imagery, but may also be that beyond the initial outcry the solution to this particular problem lay in the domain of specialist knowledge that was not easily translated into a wider debate about what kind of economic activities are deemed acceptable to the public and for the marine environment and the manner in which they are regulated.

In terms of economic incentives, MP, like ICZM, lacks a clear economic argument to incentivise marine planning, however, in attracting national government as an institutional sponsor the case can be made that marine planning provides greater certainty for the private and public sectors alike about the way in which the marine environment will be managed, and of more specific interest to the private sector, supporting marine planning may have benefits in terms of providing a clearer, streamlined framework for governing their activities and speeding up the decision making process. In this, the MMO may be seen as a fair arbitrator in sources of conflict.

Finally, the social construction of a catchment/river basin problem provides a significant example of where many of the prerequisites suggested by Hannigan as essential for the construction of problems are, in some cases, quite poorly demonstrated. Whilst gathering scientific evidence for claims about a river catchment problem has taken place in a systematic way through the environmental protection agencies of government, there appears to be far fewer high-profile popularisers to take what can be quite technical information and present this to a wider audience in a more readily understandable format.

Similarly, beyond the examples cited earlier in the chapter of acid rain and the Baia Mare chemical spill, there have been relatively few dramatic incidents or newsworthy stories to demonstrate why good chemical and biological status is necessary. The reasons for this could be that “dramatic” incidents are localised and small scale, or possibly it is because the established system of inland water regulation has performed adequately in preventing such disasters. In this respect, the fact that the catchment problem is built on a long-standing discourse about water quality and not framed as something novel means that popularisers, the media and symbolic events are less significant in the case of RBMP than they would have been in initially establishing water quality measures in the UK or at European level when the first round of water quality Directives were issued in the mid-1970s.

As with ICZM and MP, economic incentives play only a small role in constructing the case for catchment management, though it should be noted that the economic argument is couched in terms of a case for

taking action to avoid negative costs rather than what Hannigan terms an “incentive for taking positive action”, given that there are penalties for non-compliance with Directive 2000/60/EC.

The recruitment of an institutional sponsor provides the greatest influence on constructing a claim for a catchment problem. Having an established competence in the field of environmental policy, the European Union represents a high-level sponsor for activities related to the monitoring and setting of water quality standards. The fact that the European Union already had powers in relation to water quality thus makes it the natural authority for future proposals on new initiatives. At lower levels of governance, the role of national and regional institutional sponsors is weakened due to the weight carried by the European Union, and this will undoubtedly affect the discourse that takes place around measures to be taken as much of the agenda is already set by Europe, but whilst the discussion on the nature of the problem is constrained by higher level governance, there is still scope to engage a greater number of perspectives in developing solutions at the local level.

3.4.1 The Construction of a Claim: Some Conclusions

To conclude this analysis, the literature reviewed and the discussion above shows that on paper at least, there are slightly different drivers for each of the three coastal planning regimes examined. In all cases, scientific evidence from a number of governmental and non-governmental sources (such as WWF or the Environment Agency) and at all levels of governance have contributed to the recognition of some sort of environmental problem, whether this is a natural physical process whose impacts are exacerbated by anthropogenic activities, such as coastal development and the erosion and accretion of sediment identified by Steers, or a directly man-made threat such as water pollution.

Yet the existence of science alone is insufficient to socially construct a coastal, marine or catchment problem, and thus a combination of science with the other prerequisites identified by Hannigan becomes important. For ICZM, efforts by popularisers and institutional sponsors at the international level such as the United Nations and European Union have recognised the importance of the coastal zone for sustainability and are not only able to promote their claims for a coastal problem, but also in acting as an institutional sponsor propose or guide a response. This is also true for river basin management, where the European Union is, to a large extent, already accepted as a sponsor for new initiatives to address emerging environmental problems. For Marine Planning, it is NGOs such as the Marine Conservation Society and Wildlife Trusts that are acting as popularisers alongside DEFRA.

In Hannigan's original model for the social construction of an environmental problem, use of the media and dramatisation feature quite strongly as essential prerequisites for making a claim, as a means of communicating more complex (scientific or technical) messages to a non-specialist audience. Examples of such dramatisation and news stories have been highlighted here, and as such demonstrate that they are part of constructing a claim as they can stimulate a debate about a particular issue (for example the case of what to do about preserving Seahenge), or create an image that remains in people's consciousness and helps them to understand or identify with a particular argument at a later date. But in trying to establish a direct link between such incidents and the kind of long term responses that may be implemented by a government, either as a law, policy or programme of action, the effects of the media and dramatic events are quite weak or diffuse in the cases of ICZM, MP and RBMP. It could therefore be proposed that isolated incidents have a minimal influence on the construction of a claim, and that these prerequisites may only become significant when they are seen in the context of a series of incidents happening over a longer period of time.

Lastly, the use of economic incentives in constructing a claim for a problem is another prerequisite where the effects can be quite diffuse when rewards are considered in relation to broad sustainable development objectives, and less attractive when seen in terms of risk avoidance rather than a gain. Thus for ICZM, Marine Planning and RBMP again, the economic case is one of the less persuasive elements in making a claim.

Taken as a whole, the use of Hannigan's (1995) model for the successful social construction of an environmental problem therefore provides a useful framework for examining how coastal or other environmental problems are constructed, and also gives some clues as to how or what kind of response may subsequently be developed. However in using the model to trace the development of ICZM, Marine Planning and RBMP two important observations can be made:

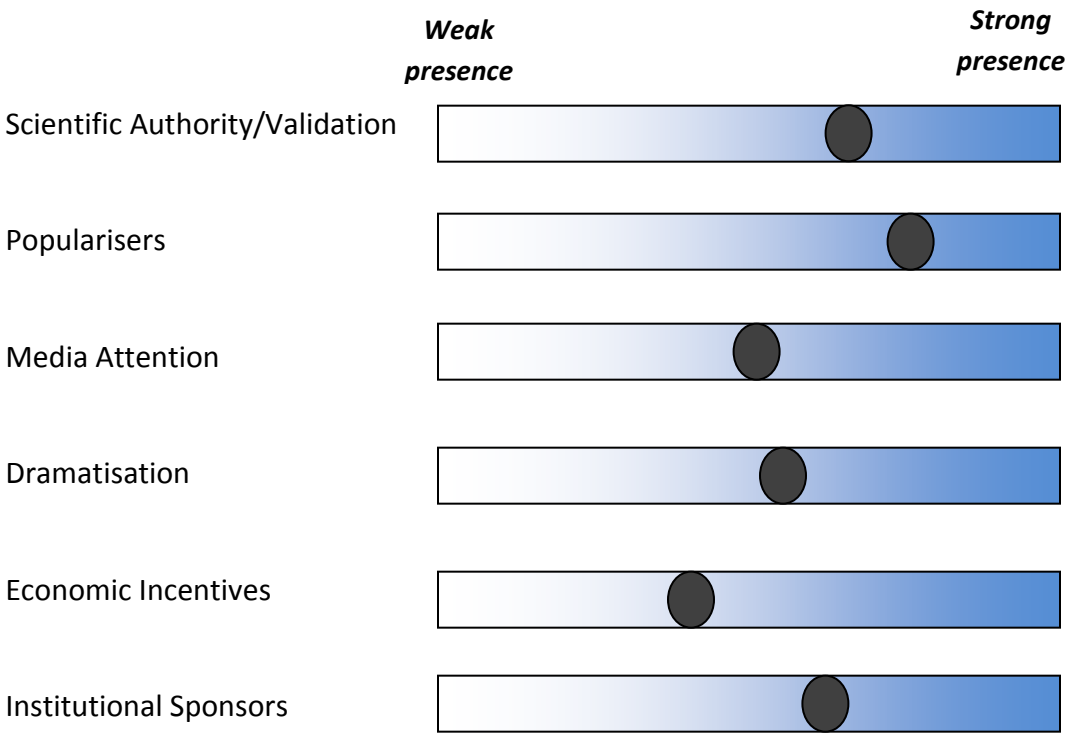
1. Whilst Hannigan treats each of the six prerequisites for constructing an environmental problem relatively equally, the literature review above shows that not all prerequisites feature equally in making the case for a problem. As has been discussed, the presence of scientific evidence may be strong, but use of the media may be weak, or there may be a lack of institutional sponsors to support a claim for action.

2. The social construction of a problem is only the beginning of a longer process, which includes a discussion of what is to be done about the problem, the choice of a course of action and implementation. Whilst institutional sponsors themselves might be in a position to act, for example DEFRA can initiate the development of new policies or procedures, Hannigan's model does not describe the mechanism by which a claim becomes the subject of political action.

The points above thus provide two further avenues for investigation in relation to the discussion of coastal, marine and catchment problems and the implementation of a response. In the first instance, the fact that certain prerequisites have a stronger or weaker presence in constructing a claim for a problem raises the possibility that Hannigan's model of social construction can be refined to demonstrate the more nuanced way in which each prerequisite may contribute to the way a claim is defined and articulated.

In other words, rather than seeing Hannigan's six prerequisites - scientific authority and validation of claims, popularisers, media attention, dramatisation, economic and institutional sponsors - as being discrete events (i.e. there is scientific evidence or there is not), each prerequisite may be viewed along a spectrum of "weak" to "strong" presence indicating how persuasive they may be in constructing a claim. Representing this visually, Figure 3.2 below shows how this may look for the construction of a coastal problem, based on what has been found in relation to ICZM in this chapter. For each prerequisite, a black circle has been placed along the spectrum of weak to strong presence to give an approximate indication of the relative strengths of each component in making the case for ICZM.

Figure 3.2: the Case for a Coastal Problem: Contributions to the Construction of Claims in ICZM



Source: Author

Were the same exercise to be repeated with Marine Planning and River Basin Management, based on the literature reviewed and conclusions made in the previous section, then it could be expected that the placement of black circles along the spectrum for each prerequisite would be slightly different, representing for example that the presence or use of media attention and dramatisation is much less significant in making the case for RBMP than it is for ICZM and Marine Planning.

Considering this critique of Hannigan's model in the wider context of the research, this exercise confirms to some extent the assertion made in Chapter One that different social constructions or definitions of a problem can result in different planning regimes being developed. The framing of the problem therefore has implications for the integration of space, levels of governance and policies or plans that may be overcome through communicative efforts to understand other perspectives and build a common vision for future actions.

Regarding the second point made on the use of Hannigan's model to explain the emergence of different coastal planning regimes, namely that the model does not adequately describe the link from defining a problem to the implementation of a response, it is necessary to return to the literature to find other sources which may provide this explanation. Reference has already been made to Kingdon, (1995, 2003), whose work takes a broader perspective on the factors which contribute to problem recognition and agenda setting.

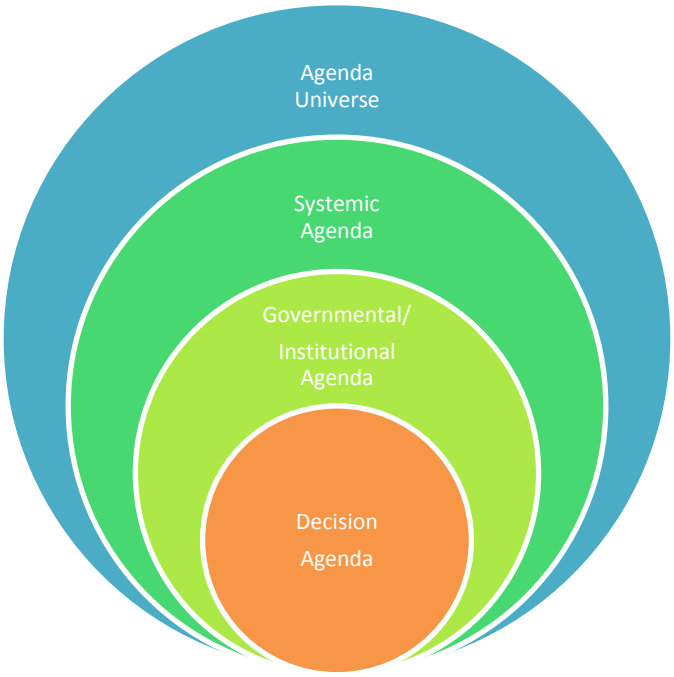
In examining agenda setting in American politics, Kingdon uses the metaphor of streams joining together – the *political*, comprising of parties, interest groups, individuals and public opinion, the *policy* stream, where policies and initiatives to tackle the problem are chosen and the *problem* stream, in which evidence for a problem (e.g. a sudden crisis, symbols, experiences and feedback from current initiatives) is drawn. Similar to the "dramatisation" discussed by Hannigan, focusing events happen suddenly, often unpredictably and attract media attention, either revealing new problems, or, as in Downs' (1972) issue-attention cycle whereby issues experience a decline in attention and then recapture public interest at a later date, encouraging thinking about new ways to deal with issues that have previously been dormant.

In describing the process of agenda setting, several "levels" of agenda are referred to. At the most general level, all issues and ideas exist in what Birkland (2005) calls an *agenda universe*. Ideas or issues with some value come to be part of the *systemic agenda*, which is defined by Cobb and Elder (1983) as consisting of "all issues that are commonly perceived by members of the political community as meriting public attention and as involving matters within the legitimate jurisdiction of existing authority" (in Birkland, 2005:110).

At a more significant level, issues reach the *governmental* or *institutional* agenda, which is defined by Kingdon as "the list of subjects or problems to which government officials, and people outside of government closely associated with those officials, are paying some serious attention to at any given time" (2003:3). Birkland observes that an even smaller number still make it to the decision agenda – "items that are about to be acted upon by the government" (2005:112).

Figure 3.3 shows these agendas represented in a series of concentric circles, the largest capturing all the potential issues in the agenda universe. These issues are reduced down through the different types of agenda closer to enaction, with the smallest number making it to the decision agenda where a solution (i.e. a policy) will be put into place.

Figure 3.3: Differing Levels of Agenda



Source: Birkland (2005)

For Kingdon, ideas about a problem or solution must reach the governmental or decision agenda for any real action to occur, and it is "policy windows" which enable policy entrepreneurs to draw together the political, policy and problem streams at opportune moments for this to happen.

Policy windows may be opened routinely, during the normal course of political business, for example a change in government following an election, but other policy window openings may be more intermittent and occur when there is either a change in the political stream, i.e. a change in the political or public mood, or when there is a change in the problem stream, whereby an issue comes to be recognised as pressing (Kingdon, 1984). At this point policy entrepreneurs must seize the opportunity to bring together the streams – recognition of a problem, potential solutions and a favourable public mood - and push forward their own proposals on to the governmental agenda. Given a viable proposal, this proposal may be taken further to the decision agenda.

Kingdon's model therefore provides an alternative to Hannigan's social constructionist perspective, although it does take in many of the same conditions needed for a problem to be recognised, such as

interest groups, symbols and dramatic events. The main deficiency of Kingdon's model, however, is that criticism which the author has already applied to Hannigan's social construction model, and a point which has also been recognised by Sabatier (1991) - that the agenda setting process outlined by Kingdon falls short of describing the subsequent events of policy formulation and implementation, i.e. it only covers what is termed "predecision processes" by Zahariadis (in Sabatier 1999;79) and thus could be modified to encompass later stages of the policy cycle. Alternatively, other policy subsystems must be explored to provide an explanatory framework for the different implementation trajectories of ICZM, MP and RBMP.

3.5 Conclusions

This chapter has addressed the first assumption of the research, namely that *the definition of an environmental problem, and the formulation and implementation of a solution, is the product of a process of social construction* and Objective 2, *to explain the emergence of coastal planning regimes in terms of the social construction of a "coastal problem" in order to understand the different policy responses that may occur.*

This has been achieved through the use of John Hannigan's framework for the social construction of an environmental problem. In doing so, it has been found that ICZM, Marine Planning and River Basin Management have reached different stages of implementation largely through differing combinations of the ways that scientific evidence has been used and the weaker or stronger presence of popularisers or institutional sponsors. The media, dramatic incidents and economic incentives have played a much lesser role in demonstrating problems or providing a case for action.

In undertaking this analysis it has been proposed that Hannigan's model may be refined to indicate this weaker or stronger presence of the six prerequisites, and in doing so it may be possible to identify ways in which certain prerequisites are more persuasive in making a case for action. Therefore, if the social construction of a problem is better understood in terms of its component parts, it may assist in communicating the problem amongst different stakeholders and help to build a shared understanding of issues that need to be addressed.

A second important point raised in this analysis is the problem of moving from the social construction of a problem to implementing a solution. Whilst dialogue amongst stakeholders can help to identify a common concern, neither Hannigan nor Kingdon provide any real mechanisms for explaining how an issue is finally acted upon by government. Therefore, the next chapter will investigate the broader process of policy making to find ways in which the possibilities for solving a coastal, marine or catchment problem may become a reality.

CHAPTER 4: A Collaborative Model of Policy Making for Integrated Coastal Zone Management

4.1 Introduction

This chapter represents the final part of the contextual and conceptual framework of the research, and in doing so contributes to meeting Objective Three of the research, which is *to develop an understanding of how integration may be facilitated by collaboration between stakeholders in coastal organisations.*

In the previous chapter, the various social constructions of the coastal/marine/catchment problem were examined using the framework proposed by John Hannigan (1995). In doing so, a number of conclusions were drawn about how the different prerequisites of Hannigan's model (e.g. use of the media, scientific evidence, economic incentives) may feature more or less strongly in the rhetoric of claims made in order to place coastal, marine or catchment problems on the political agenda for action. This presented the possibility for developing a more nuanced model of social construction, reflecting a spectrum of responses or discourses around the nature of the problem.

Furthermore, this exercise revealed a limitation in the use of Hannigan's model to explore the way in which different coastal planning regimes come to be implemented. This is because the articulation of a problem (i.e. making a claim) and development of potential solutions to such a problem represents what is perhaps best summed up as "agenda setting", which is only the first stage in a larger process of policy making and implementation.

Therefore to gain a deeper understanding of policy making and implementation this chapter explores the broader policy making process, which has been characterised by some as a process of discourse and negotiation between stakeholders (see Bevir, 2009; Hajer and Wagenaar, 2003; Healey, 1997) and provides the underlying principles for participation that are aspired to in the policy making procedures of ICZM, MP and RBMP. Utilising literature on collaboration in planning, governance and policy analysis, other factors which contribute to the implementation of coastal, marine and catchment policies will be investigated.

In conjunction with the idea of collaborative approaches to policy making, this chapter also considers the notion of top-down and bottom-up styles of implementation. Having previously observed the

collaborative, bottom-up style of ICZM and the more instrumentally rational, top-down approaches of MP and RBMP, and given that each regime stresses the importance of stakeholder consultation in plan making, this raises an important issue about how stakeholder concerns and the potentially conflicting strategic objectives of higher level government may be reconciled through deliberative practices and the structures of coastal governance.

This issue will be examined with reference to models of inter-organisational collaboration and governance. Klijn notes that "literature and research in the tradition of the governance network focus primarily upon the complexity of decision making and the problems of reaching acceptable outcomes for societal problems because of the involvement of many actors" (2008:127). In the context where planning for coastal areas is seen as a cross cutting issue the use of collaboration in coastal planning regimes is perhaps critical and it is therefore useful to assess how far current practice follows the characteristics of collaboration that are deemed useful or desirable in the literature. Combining theories of the policy process and collaboration will enable an appropriate framework to be devised for exploring variation in the implementation of ICZM, MP and RBMP in more depth.

4.2 Models of the Policy Process

As stated in the previous chapter, Hannigan's model of the social construction of an environmental problem can be used to uncover information about the way the coastal, marine or catchment management problem is framed in relation to each of the six prerequisites outlined. However, Hannigan notes that "invoking action on an environmental claim requires an ongoing contestation by claims-makers seeking to affect legal and political change" (2006:73) and thus following agenda setting there must be continued negotiations between claims makers and the executive agencies of government in order to produce outputs such as legal instruments, new policies, programmes and projects.

In order to understand the process through which policies, programmes and projects are devised, it is helpful to draw upon theory related to the policy making process. It is first necessary however to provide a definition of what is meant by "public policy", that is, the product of the policy making process. For Jenkins (1978), public policy is:

> *"a set of interrelated decisions taken by a political actor or group of actors concerning the selection of goals and the means of achieving them within a specified situation where these decisions should, in principle, be within the power of these actors to achieve".*

This emphasises the complex network of decision making which takes place in the formulation of public policy, and also the need for feasibility in the actions that are proposed.

Another definition is that provided by James Anderson, who describes public policy as "a purposive course of action followed by an actor or a set of actors in dealing with a matter of concern" highlighting the link between a problem, perceived or real (i.e. a socially constructed claim), and government action (1984, in Howlett and Ramesh, 2003:7).

Within these two definitions therefore, we find key elements of what a public policy is (i.e. what it is designed to do) and how such a policy may come about (aspects of the policy process). Further reference to policy studies literature, in particular Hogwood and Gunn (1984) distinguish between *studies of policy,* i.e. knowledge of policy and the policy process, or understanding of how policy is made, and *policy analysis* – knowledge in the policy process, assisting policy analysts to make improved policies. In this case the study of coastal planning regimes is concerned with those dimensions of policy studies outlined by Hogwood and Gunn, i.e. examining policy content, the policy process itself and policy outputs (1981, in Ham and Hill, 1993).

In terms of content, the previous chapters of the literature review have served to uncover something of the histories of how coastal, marine and catchment management policies have been developed and implemented.

Secondly, in examining the policy process, other studies of ICZM in the UK have considered it in isolation from other coastal planning regimes (see for example McGlashan, 2002, Stojanovic and Shipman, 2007, Midlen, 2006) and thus do not address the divergence of coastal, marine and catchment policies from common origins. Such divergence must be considered as resulting from the different social constructions or conceptualisations of problems and the decision making processes undertaken in order to address such problems.

Policy processes also have direct links with the third aspect – policy outputs, as it is the policy process that structures subsequent policy outputs. The abovementioned studies of ICZM "implementation failures" cite the lack of statutory status and resources as reasons for such failures, but a deeper

understanding of the participatory processes seen in Coastal Partnerships, contrasted with the more top-down implementation approach of MP and RBMP which can be obtained through further empirical studies, may reveal additional insights into how more appropriate outcomes may be achieved for ICZM.

As policy analysis seeks to untangle a complicated web of relationships and events, the stages model of the policy process first devised and operationalised by Harold Lasswell (1956) may be used to disaggregate the stages a policy or programme would go through during its "policy life" (deLeon , in Sabatier, 1999:20).

Through the policy process model, Lasswell (1956) sought to develop a normative, rational model of policy making which followed the stages of:

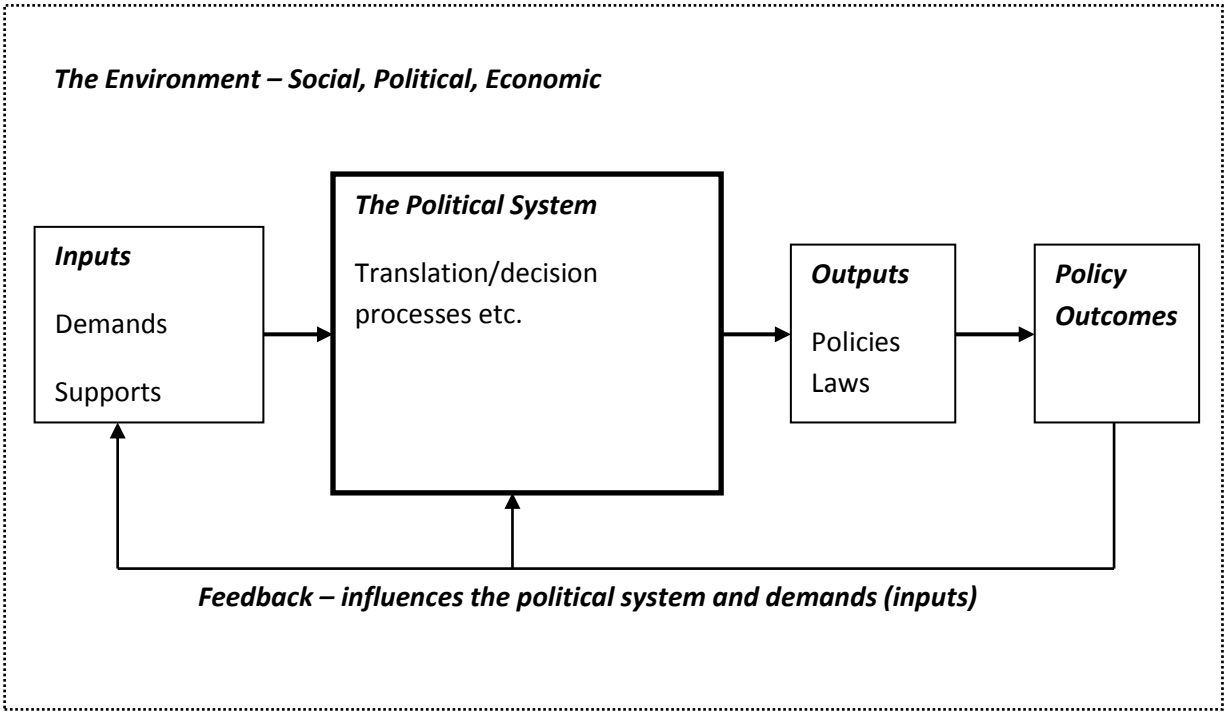
1. Intelligence gathering,
2. Promotion of policy options,
3. Prescription,
4. Invocation of the prescribed course of action,
5. Application of policy by those charged with delivery,
6. Termination, and finally
7. Appraisal.

The stages model has been refined, for example by Brewer (1974) and Hogwood and Gunn (1984), to reflect new understandings of policy making and provide a clearer terminology for each of the stages. But more significantly the term *policy cycle* has come to be used in recognition of policy succession (Brewer and deLeon, 1983, in Howlett and Ramesh, 2003) and where repetitions of policy making and implementation build upon each other as an expression of purposeful learning (Olsen, 2002:30).

Referring back to terminology, variations on models of the policy cycle proposed by different authors elaborate components of policy making in different ways. Thus the first stage of "initiation" identified by Brewer (1974) or "deciding to decide" in the case of Hogwood and Gunn (1984) refers to the detection or conception of a problem and the recognition that action must be taken – as in the social construction of an environmental claim. The "implementation" phase identified by Brewer, (1974) and Hogwood and Gunn (1984), whereby decisions are translated into actions is paralleled by the "invocation" and "application" phases outlined by Lasswell, in which sanctions are taken to enforce compliance with the decision maker's wishes, and may be followed by the application of measures to penalise those who do not comply (Howlett and Ramesh 2003:12).

Another model of policy making is that devised by Easton (1965), which views policy making as a system akin to a natural or biological system, comprising of a series of inputs, processes, outputs and feedback, operating in and being influenced by its surrounding environment (Birkland 2005:201). Figure 4.1 below shows that in the input-output model, inputs take the form of policy demands (for action) and supports, for example endorsement by voting or adherence to new regulations by various actors, which are followed by decision making processes, whereby the political system or "black box" translates inputs into outputs in the form of policies and laws. The outcomes or impacts of decisions feed back to the inputs of the system, influencing future decision making.

Figure 4.1: the Policy Process as a System of Inputs and Outputs



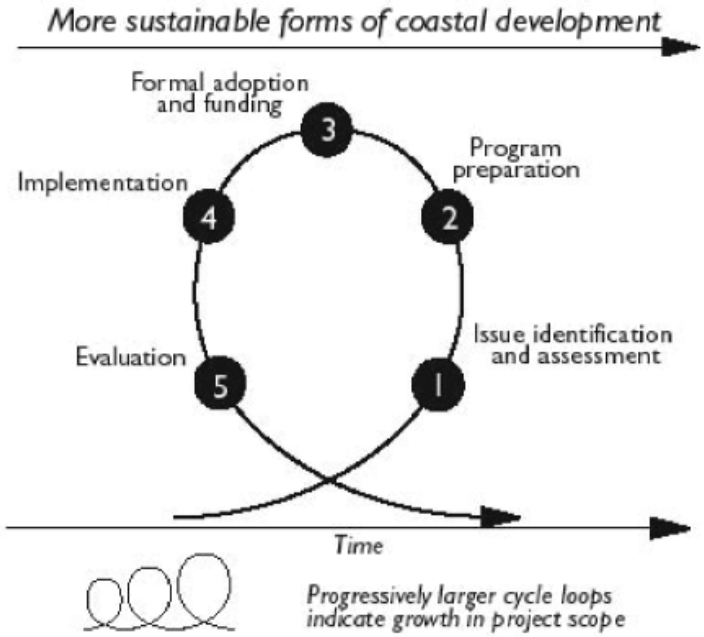
Source: Adapted from Birkland (2005) and Hill (1997)

Easton's systems model differs somewhat to Laswell's stages model in that it gives greater attention to external factors in the policy process. Lasswell's model focuses on decision making within a limited sphere of governmental actors or officials (Howlett and Ramesh 2003:12). Yet policy making, particularly in the modern era of governance is dependent upon a complex network of policy actors and power relations which both influence and are influenced by government, therefore shaping the inputs, processes and outputs of the political system. Ham and Hill note however that Easton's model, although stressing the importance of the conversion process or "black box" fail to give it the same level of

consideration as they do the inputs, and thus Easton's model cannot provide the researcher with a full appreciation of the dynamics inherent in decision making (1993:16).

It has been argued that policy cycle models are over simplistic, assuming that policy emerges via a logical path when it is known that the policy process may be highly disordered (Jenkins, in Hill, 1997:31). But what is pertinent about models of the policy cycle is their underlying logic of problem solving, a purpose envisioned by Lasswell in his call for a scientific approach to the study of public problems (Birkland, 2003) and also noted by Howlett and Ramesh (2003:13). Whilst such scientific approaches to policy have been the subject of criticisms made earlier in the literature review (see Chapter 2 and the discussion of rationality), the stages model retains its usefulness in terms of providing a structure for the analysis of policy formulation, and in fact the plan making cycles proposed for ICZM, MP and RBMP also adhere to a staged approach. The Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) model of an integrated coastal management policy cycle (1996) is derived directly from the work of Lasswell, Brewer and others to provide a framework for activities associated with a "generation" of coastal management, shown in Figure 4.2 below:

Figure 4.2: The ICZM Policy Cycle

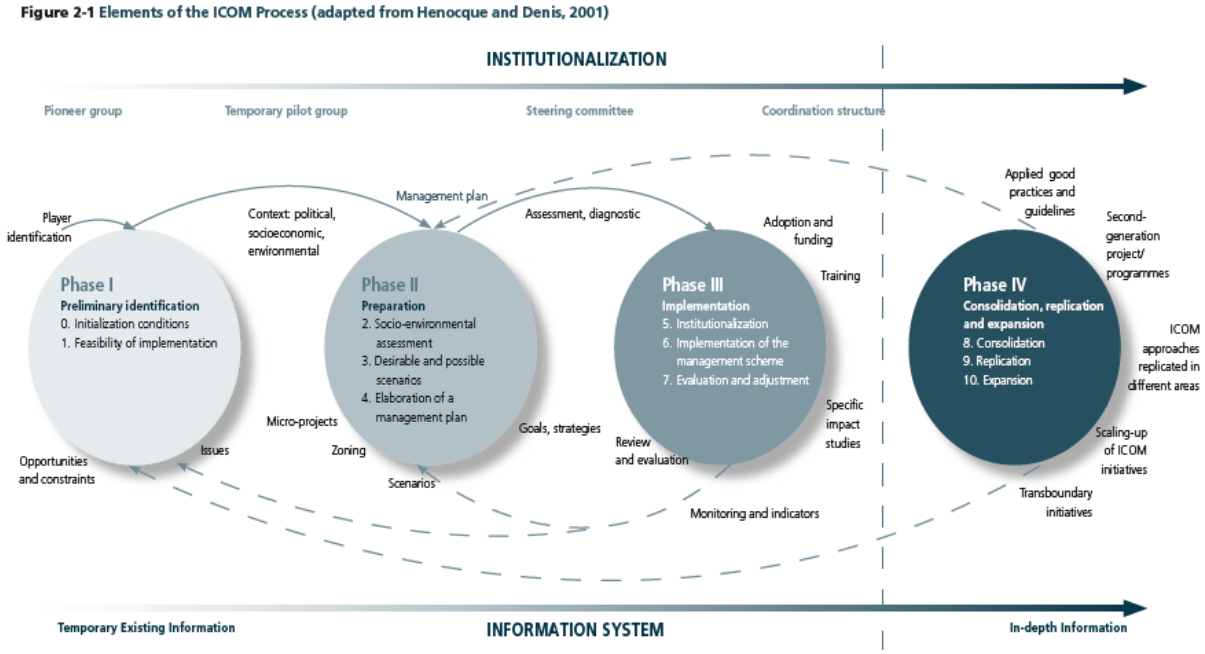


Source: Olsen (2002), adapted from GESAMP (1996)

Olsen (2001) notes that this simplistic policy cycle is useful because it "draws attention to the interdependencies between the steps within a generation and between successive generations of management" (2001:328), thereby demonstrating how the inputs into an initial stage of decision making can be built on in a process of adaptive management,

Another example of the ICZM policy cycle comes in the form of the Intergovernmental Oceanographic Commission's Integrated Coastal and Ocean Management (ICOM) process, which divides the implementation of ICOM into a number of phases and smaller steps. These are shown in Figure 4.3 below, with the phases of (I) preliminary identification (of problems and planning needs), (II) preparation of plans, (III) implementation of plans, and (IV) consolidation, replication and expansion as ICOM becomes further institutionalised.

Figure 4.3: the ICOM Policy Cycle



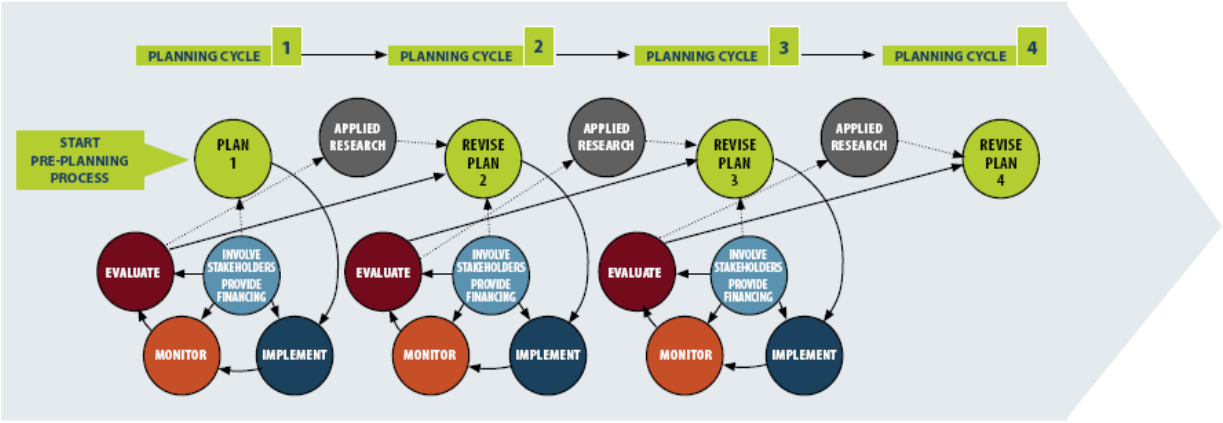
Source:IOC (2006:10)

Policy cycle models such as those by GESAMP (1996) and the IOC (2006) have also provided the foundations for indicators to measure the progress of ICZM implementation. For example, Pickaver *et al* (2004), in work for the European Commission's ICZM Experts Working Group on indicators and data (WG-ID) proposed a semi-quantitative set of indicators which "takes the thinking of the complex ICZM management cycle towards much more simplified comparative analysis... it recognises that the ICZM cycle can be broken down into a series of discrete ranked actions" (Pickaver *et al,* 2004:454).

The IOC's *Handbook for Measuring the Progress and Outcomes of Integrated Coastal and Ocean Management* (IOC, 2006) also outlines indicators to be used for ICOM (ecological and socioeconomic) alongside a set of governance performance indicators which measure the performance of programme components (e.g., status of ICOM planning and implementation), as well as the progress and quality of interventions and of the ICOM governance process itself (IOC, 2006:12). These indicators are formulated based on a number of broad goals such as "Enhancing information, knowledge, awareness and participation" and associated objectives, for example *ensuring adequate levels or higher education and professional preparation for ICOM.* Such indicators bring added value to the policy cycle in that they can provide more detail about the policy sub-cycles or smaller components of a full iteration of the policy cycle that may need to be considered and incorporated into decision making processes.

Similarly, UNESCO's planning cycle for marine spatial planning follows that "MSP is a public process of analysing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic and social objectives that are usually specified through a political process" (Ehler and Douvere, 2009:18), acknowledging both the instrumental nature of planning and the deliberative elements of decision making which are indicated by stakeholder contributions to stages in the plan cycle (see Figure 4.4 below).

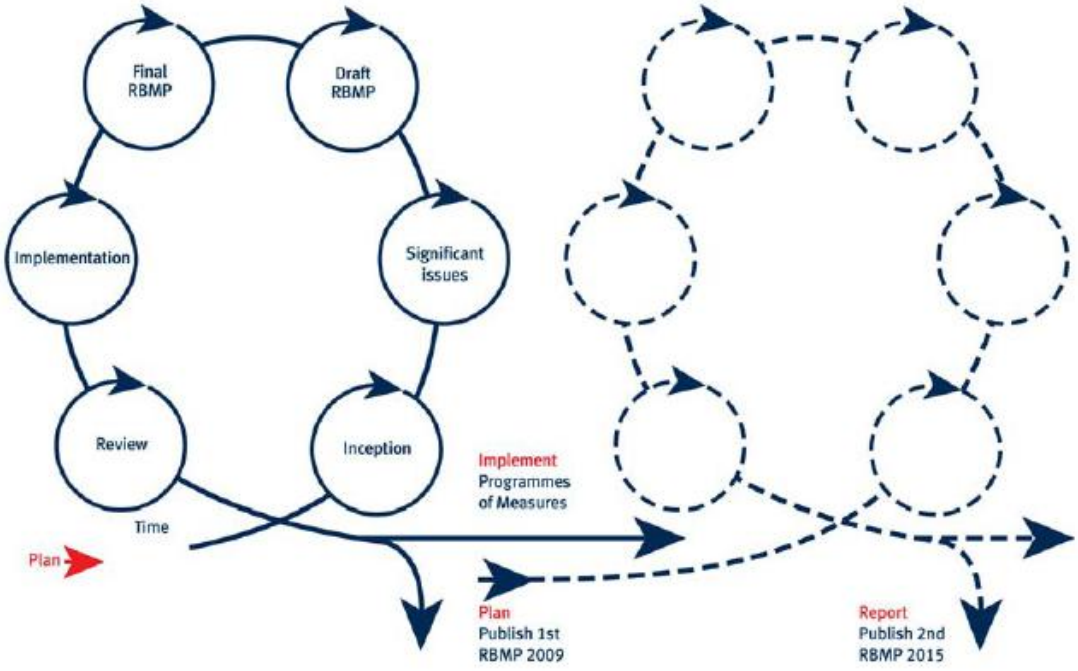
Figure 4.4: The Continuing MSP Planning Cycle



Source: Ehler and Douvere (2009)

For river basin management, the Environment Agency's cyclic approach incorporating the policy framework provided by RBMPs (see Figure 4.5) demonstrates that each phase itself is composed of a number of smaller tasks and interactions.

Figure 4.5: Cycles of River Basin Management Planning



Source: Environment Agency (2006a)

Table 4a shows how Howlett and Ramesh (2003) compare stages of applied problem solving with corresponding stages of the policy cycle. Each of these stages will be explained in more detail in the next sections.

Table 4a: Problem Solving and Stages of the Policy Cycle

Applied Problem Solving	Policy Cycle Stages
1. Problem recognition	1. Agenda setting
2. Proposal of a solution	2. Policy formulation
3. Choice of solution	3. Decision making
4. Putting solution into effect	4. Policy implementation
5. Monitoring results	5. Policy evaluation

Source: Howlett and Ramesh, 2003:13

4.2.1 Problem Recognition/Agenda Setting

In the previous chapter, Hannigan's (1995) model of the social construction of an environmental problem was used to demonstrate how coastal, marine and catchment problems may come to be defined by various actors. However it is not until policy makers begin discussion about a problem that it is said to be "on the agenda" (Kraft and Furlong, 2004:81). Therefore the first stage of the policy cycle is concerned with defining an issue and elevating it to a level of prominence whereby it is regarded as a "public" problem requiring action from the government (Howlett and Ramesh 2003:121).

The process outlined by Hannigan demonstrates how understandings of issue definition in the policy sciences have moved from observing the discovery of objective facts to recognition that creating knowledge and the framing of problems is a socially constructed process. In doing so, the social construction of a problem thus represents a discourse amongst different groups, and a competition between groups to have their definition accepted in order to achieve a response that is consistent with their own objectives or vision for the future of an issue. Schattschneider (1960) states that

> *"the group that successfully defines a problem will also be the one that defines solutions to it, thereby prevailing in the policy debate" (in Birkland, 2005:109).*

This view is also supported by Deborah Stone, who observes that

> *"Problem definition is strategic because groups, individuals and government agencies deliberately and consciously fashion portrayals so as to promote their favoured course of action"* (Stone,2002, in Kraft and Furlong, 2004:133).

Given the number of potential issues a government may have to deal with at any one time, Kraft and Furlong (2004) point out that some never capture the government's attention. Once a problem is defined, it must then be advanced on to the agenda for action. This event in itself is not as clear cut as it might appear - as was seen in the previous chapter, Kingdon (1984) and others have identified different levels of agenda that elevate issues to a greater level of importance and increase the likelihood of action being taken, and one of the criticisms made of Hannigan's model in Chapter 3 acknowledges that constructing a problem is only the first step towards the implementation of a response.

Several models have been defined in order to explain the movement of issues from the systemic to the governmental and decision agendas. Early models of agenda setting sought to find causality in the underlying socioeconomic conditions of society, which prompted a government response, however

these models (see Pryor (1968) and Wilensky (1975), proponents of convergence thesis, and Schneider and Frey (1988) on political business cycles) were only able to provide a general typology of issues and variables – social, political and economic – contributing to the agenda setting process (Howlett and Ramesh, 2003:131; see also Sabatier, 1999). King (1973) and Hofferbert (1974) attempted to draw these variables together in a *funnel of causality*, which showed decision making as a direct or indirect function of historical-geographical conditions, socioeconomic conditions, political behaviour, institutions and political elites (Sabatier, 1991:150) acting in a nested system. Like Easton's model however, its "black box" approach of converting demands to outputs does not give sufficient attention to specific causative agents (Howlett and Ramesh, 2003:132) and in particular neglects to weight the influence of elites over mass political behaviour in driving policy decisions (Sabatier, 1991).

A further example of multivariate agenda setting is the study of agenda building in different societies by Cobb, Ross and Ross (1976), in which an "outside initiation" model was found to apply to pluralist societies, whereby groups outside government such as NGOs went through the steps of:

1) issue initiation, in which an issue is articulated, echoing Hannigan's (1995) idea of popularisers or sponsors;
2) specification, in which alternative solutions are specified in the form of demands, in the same way that Easton's systems model has inputs in the form of demands from groups in society;
3) expansion of public support, to create further pressure or interest, and if that is successful,
4) the issue makes entrance on to the governmental agenda.

Cobb *et al* also identified models more appropriate to other political systems, such as the "mobilisation" model, likely to be found in one party states, whereby an issue may already be on the governmental agenda and is pushed down to systemic agenda level in order to bolster support, and the "inside initiative" model, where issues arise within the government sphere (1976:128) and supporters in influential groups attempt to place the issue on the governmental agenda without expansion of support, as they do not wish the issue to be contested in public.

Whilst Cobb et al (1976) applied these models to specific countries and their associated political contexts, Howlett and Ramesh note that these different styles of agenda setting varied not so much by regime as by sector (2003:135). Thus the "outside initiation" model may be more pertinent to agenda setting in the sphere of environmental policy in the UK, where it has been demonstrated (in the previous

chapter of the literature review) that NGOs, other interests outside government and wider public debate have contributed substantially to agenda setting for coastal planning regimes.

The model of agenda setting proposed by Kingdon (1984), which has been elaborated in the previous chapter, provides a different insight into agenda setting by recognising that a number of determinants or forces may be working simultaneously and in a more unpredictable fashion than is suggested by other models. Conversely this can also be a criticism, as Howlett and Ramesh note the model may be "too contingent on unforeseen circumstances" (2003:138). But in acknowledging that many of the issues and solutions that reach the governmental agenda are not new, i.e. long standing problems may be coupled with new solutions, or audiences may go through a gradual process of "softening up" by policy entrepreneurs, Kingdon's model reflects the reality of policy making as an iterative cycle in which feedback demonstrating the impacts of government interventions (Sabatier, 1991:151) may be a driver for further policy change.

The combination of multiple variables in defining problems and outputs complicates the task of attributing causality to a single source and thus no single model of agenda setting can provide a comprehensive framework for explaining what issues come to be addressed by the implementation of new policies. However the agenda setting phase does provide a bridge between the social construction of a problem, whether this is a new problem or bringing to bear new perspectives on pre-existing conditions, and implementing measures to tackle that problem.

4.2.2 Proposal of a Solution/Policy Formulation

This second stage of decision making can be difficult to separate from agenda setting as frequently a problem and a potential solution may be simultaneously placed on the agenda by entrepreneurs, as can be seen in Kingdon's work on agenda setting (1984, 1995). In essence policy formulation is the generation or proposal of means or courses of action to resolve a perceived problem, and in a rational decision making process involves consideration of all possible alternatives and their consequences (Hill, 2005), although it has been established in Chapter Two that there is rarely perfect information or analytical capacity to make this possible.

In examining policy formulation, one of the first things to reflect on is who is actually involved. Obviously this will differ with every policy decision, but on a more general basis different theoretical propositions

can provide some perspectives on the groups or stakeholders with a role to play. An early model identifying collective approaches to policy formulation is the “iron triangle” metaphor, which describes the relationship between actors operating in a particular policy domain (sector) or subsystem of government. According to Burstein (1991) these domains are socially constructed around organisations sharing a concern for a problem, or relationships with other organisations that are perceived to have influence in advancing a solution.

The iron triangle encapsulates the dependent relationship between bureaucrats, governmental committees and interest groups in that interest groups rely on bureaucrats to enact their proposals and provide a link to government, whilst bureaucrats require the help of pressure groups to galvanise political support for a program they are charged with delivering for an affected group (Peters, 1986, in Rhodes, 1997). Whilst the iron triangle was representative of policy making in some domains where issues could be “captured” by privileged groups, this closed system gave way later to pluralist and more deliberative, open models such as the issue networks observed by Heclo (1978), Sabatier and Jenkins-Smith (1993) and Marsh and Rhodes (1992).

The issue networks identified by Heclo differed to the concept of iron triangles in that they featured a broader number of participants concerned with an issue from government, interest groups, the private sector, academia and the media, acting with “quite variable degrees of mutual commitment or dependence on others in their environment” (1978:102) and as such issue networks were able to communicate criticisms of policy and generate ideas for new initiatives (McFarland, 1987, in Rhodes, 1997:34). Later, the Advocacy Coalition Framework (ACF) devised by Sabatier and Jenkins-Smith (1993) proposed two or more coalitions consisting of actors at all levels of government “who share a set of policy beliefs” (Sabatier, 1999:09) within a policy domain, competing to promote their own interests by manipulating governmental and public behaviour while at the same time seeking to establish a countervailing position to other coalitions in the same domain.

Rhodes (1986, and Rhodes and Marsh, 1992) elaborates further on the pluralist view of Heclo, identifying what Hill refers to as “networks of varying cohesiveness” (2005:69) that characterise policy making in the UK. These networks are located along a continuum from the relatively small and exclusive policy communities to much larger, open networks based on the distribution and exchange of resources (which in turn implies a distribution of power) between actors.

At one end of the continuum, policy communities most closely resemble the iron triangle in that they display a limited membership, relatively insulated from other networks (Rhodes, 1997:38). Members of policy communities share values and are highly interdependent in terms of exchanging resources in a vertical dimension (as in top down implementation) to enable the delivery of services. This interdependence makes the distribution of power in policy networks fairly balanced, and relationships remain stable over time.

In contrast, issue networks are a much broader grouping of actors, including those who may be more or less powerful. Whilst issue networks share a degree of interest and basic knowledge about a particular issue, they may not necessarily share the same view of what should be done, and thus Heclo observes that

> "Increasingly it is through networks of people who regard each other as knowledgeable, or at least needing to be answered, that public policy issues tend to be refined, evidence debated, and alternative options worked out – though rarely in any controlled, well organised way" (1978: 104).

In this sense policy networks are more diverse than policy communities and offer greater opportunities for examining policy alternatives. However such diversity also brings with it an increased likelihood of conflict and lower levels of agreement. Therefore it may be difficult to discern who is in control of policies and decisions (Heclo 1978:102).

A key feature of proposing solutions to a problem or policy formulation is experiential learning by interaction within the political system. Karl Deutsch (1966) is usually credited with first discussing policy learning in theorising about the role of feedback in enhancing governmental "learning capacity" (May, 1992:332). This concept is taken up by Heclo (1974), and applied by Sabatier (1988) to Advocacy Coalition Frameworks as "policy oriented learning". This describes the way in which coalition members modify their beliefs, behaviour and objectives over time based on their experiences of "dynamic system events" such as changes in socioeconomic conditions and technology, public opinion, governing coalitions (i.e. personnel within government), policy decisions and impacts from other subsystems. Policy oriented learning therefore has much in common with the single and double loop learning model previously described in relation to the adaptive management principle of ICZM in Chapter Two.

Whilst Sabatier and Jenkins-Smith (1990) conceptualise policy oriented learning as occurring within and across advocacy groups, May (1992) categorises policy learning into three different types. *Instrumental*

learning, concerning the viability of policy interventions and implementation tools, *social learning* – improving understanding of how an issue is socially constructed in order to redefine goals, and *political learning* – adjusting strategies for advocating a policy idea or problem. This framework is particularly insightful given that policy formulation in relation to coastal planning regimes is largely based on the need to improve or streamline a number of existing policies (or correct implementation "failures" in the case of ICZM), and also with regards to continuously improving understandings of the scientific evidence base and stakeholder perspectives on the interactions of coastal activities. The fact that much of this streamlining or integration has not been achieved indicates that policy learning is still at an early stage for coastal management.

4.2.3 Choice of Solution/Decision Making

The third stage of policy making represents the activity of choosing between those alternatives that have reached the decision agenda to effect policy change, whether this is positive (a change to the current course of action) or negative (deciding to maintain the status quo). Traditional views of decision making proceed from a rational comprehensive approach, that is, actors will undertake the tasks outlined by Healey *et al* (1982:8) of clarifying policy goals, systematic analysis, generation of policy alternatives, systematic analysis of these alternatives, and monitoring performance.

In Chapter Two the rational approach was criticised for presenting a normative, ideal process of decision making that is rarely achievable (Braybrooke and Lindblom, 1963), and that it attempts to separate facts from values in what is a fundamentally value-laden activity by means of systematically and objectively viewing all available information. However the key driver of decision making is goals to be achieved, and whether goals, images or visions are individual or collective, as noted by Andreas Faludi in his (1973) studies of rational process planning, the acknowledgement of such visions demonstrates that values and preferences underpin policy choice.

In response to the rational model, Herbert Simon's model of bounded rationality demonstrated that decision makers adopt rules of thumb in order to simplify the choice between alternatives (Ham and Hill, 1993:84), and, rather than seeking to choose the alternative that maximises their values, decision

makers “satisfice” or select the alternative considered good enough, in a process that Simon argued to be a realistic analysis of decision making in practice (Simon 1957, in Ham and Hill, 1993).

In policy analysis literature, rationality is frequently contrasted with more pragmatic, action oriented approaches (Allmendinger, 2002) to decision making, such as Charles Lindblom’s incrementalism or Amitai Etzioni’s mixed scanning. Following his proposition that decision making proceeds by successive limited comparisons of alternatives that are only slightly different in each case, in later work Lindblom uses the term “disjointed incrementalism”, in which limited comparisons are used to select alternatives that ameliorate problems on a trial and error basis rather than aspiring to more fundamental policy change. Underpinning this idea is the notion of achieving consensus, and Lindblom (1965, in Healey, 2006:24) argued for a more negotiative “partisan mutual adjustment”, whereby decision makers, exposed to other decision makers and alternatives engage in bargaining and negotiation to arrive at coordinated decisions – a situation which is more representative of deliberative decision making, where “policy formulation and policy implementation are inevitably the result of interactions among a plurality of separate actors with separate interests, goals and strategies” (Scharpf, 1978, in Klijn, 2008:346).

Lindblom’s disjointed incrementalism has been criticised for its “power blindness” (Allmendinger, 2002:128), a point demonstrated by Harrison, Hunter and Pollitt, who note that “a sequence of essentially incremental changes may well occur in a context in which certain parties are dominating and therefore mutual adjustment is not occurring” (1990, in Ham and Hill, 1993:87). Furthermore, incrementalism was seen as being conservative, its focus on short to medium term objectives being unsuited to more fundamental policy change, according to Dror, justifying a “policy of no effort” and acting as “an ideological reinforcement of the pro-inertia and anti-innovation forces prevalent in policy making” (see Smith and May, in Hill, 1997:166). Lindblom later abandoned early assumptions about the pluralist nature of society (Gregory, in Hill, 1997:175), stating more explicitly that “public policy making has to be understood essentially as a political process, rather than an analytical, problem solving one” (Ibid, p186).

As much of the policy science literature has outlined the shortcomings of incrementalism and rationalism, scholars have sought to identify ways in which the more desirable elements of both may be synthesised in a third model of decision making. Dror (1964) proposes a normative optimum model, which seeks to increase both the rational and extra-rational or creative, intuitive elements of decision making , although this allowed for some “vague” concepts of extra-rational information to be prescribed (Smith and May in Hill, 1997:168).

Amitai Etzioni similarly proposed a guide to decision making known as mixed scanning, which distinguished between fundamental decisions, which set a direction and provide context for incremental decisions (Ham and Hill, 1993:89). In the mixed scanning approach, decision makers would proceed from a broad scan of an issue to ascertain more fundamental issues or decisions, which are then followed up with a more detailed examination of alternatives and incremental decisions. Whilst Etzioni claimed this combined model of rationalism and incrementalism helped to reduce the shortcomings of the other, Smith and May point out that "fundamental decisions in one context are incremental in the other and vice versa", realising the possibility that decision makers hold different views of what constitutes a fundamental issue. In this way, mixed scanning fails to reconcile the rational versus incremental debate successfully (in Hill, 97:168).

Allmendinger notes that "it is not a giant leap to see the link between Lindblom's emphasis on agreement, consensus and mutual adjustment and the recent developments in collaborative planning theory" (2002:127), which will be discussed later on in this chapter in relation to the partnership working evident in coastal planning and management regimes. Certainly decision making has become increasingly complex given the number of participants that are required to be involved in the process, not just to ensure the legitimacy of decisions but also to assist in the delivery of policy. The implementation phase of policy making is considered in the next section.

4.2.4 Implementation/Putting a Solution into Effect; and Monitoring Results/Policy Evaluation

Following a decision to amend or make a new policy and the selection of means to achieve policy goals, decisions must then be translated into action. Birkland (2005:182) notes that prior to studies of implementation, policy scientists assumed that "implementation largely proceeded after enactment with little or no controversy". Similarly Bevir observes that implementation was conceived "as a top-down administrative and hierarchical process" (2009:104). In reality, implementation has rarely been unproblematic, and the stages or systems models of the policy cycle have been criticised for imposing a framework of implementation analysis that is potentially distorting (Hill 2005:21).

Implementation studies are closely related with the final policy evaluation stage of the policy cycle. Policy evaluation, according to Howlett and Ramesh, "refers broadly to the stage of the policy process at

which it is determined how a public policy has actually fared in action" (2003:207), and given that policy making relates to the attainment of particular goals, it makes sense to consider the implementation and monitoring stages together (Colebatch, 2002).

Hogwood and Gunn (1984:219) note that although evaluation is concerned with policy that has been put into effect, decisions on the means of evaluation should not be left until this stage and the ability to measure policy outcomes in some way must thus form part of the earlier policy formulation stage. Evaluation can take a number of forms, and in keeping with earlier approaches to policy science, initial models of evaluation proceeded from a neutral, systematic and rational perspective, although later recognised that interpretation is itself a contestable issue (Howlett and Ramesh, 2003:219), dependent on different group's understanding of the problem being addresses and their preferred solution. Subsequently, judgements of policy "success" or "failure" may lead to, in the case of Lasswell's original model, policy termination, or provide feedback to earlier stages of the policy cycle in the form of the reconstruction of policy issues, policy learning and succession.

In examining implementation, research in the 1960s and early 1970s such as Pressman and Wildavsky's (1973) work on the implementation of job creation schemes in Oakland sought to explain why the programme had not achieved its goals, and in doing so the focus of implementation research turned to "top-down" and "bottom-up" methodologies for understanding the causes of implementation failure.

Under the top-down approach policies are assumed, as has been described earlier in the section, to be working towards a clear goal or goals that can be easily measured. The following conditions also apply:

- Policy is dominated by a piece of legislation or policy statement which subsequently structures implementation (Howlett and Ramesh, 2003:189, and Sabatier, 1986)
- A logical chain of command from political leaders to lower level executive agencies exists (Howlett and Ramesh, 2003)
- Implementing officials at lower levels of government share the values and goals of policy makers and are committed to policy objectives (Sabatier, in Hill 1997:275).

The first two conditions outlined above have been applied in earlier chapters in order to determine the nature of ICZM, MP and RBMP policies and to partially account for the different implementation trajectories of each.

Several authors have found the top-down model to be problematic. In the first instance, the concept of "policy" and thus policy goals as the object of implementation requires further interpretation. Whilst clear goals are assumed, Hill notes that policies can be "deliberately made complex, obscure, ambiguous or even meaningless" (2005:179). Certainly for ICZM, commitments to achieving integration and sustainability might be viewed as complex and ambiguous as stakeholder's own constructions of these terms will differ considerably.

Secondly, in assuming a clear chain of command from policy makers at the top of the hierarchy to lower level executive agencies such a model fails to take into account the complexities of multi-level governance. In Pressman and Wildavsky's case, the need to "clear" decision at different points and by participants with differing levels of commitment and views of policy objectives demonstrates that "the more policy depends on such clearances, the more likely it was that the original objectives would not be accomplished" (Colebatch, 2002:52). This is because implementation is dependent upon linkages and cooperation between actors – where those links do not exist it results in what has come to be known as the *implementation deficit* or *gap*. Cumulatively, such deficits may prevent policies achieving their intended outcomes (Hill, 2005:177).

It must be noted that the implementation deficit referred to in policy literature differs somewhat from the ICZM "failure" that has been mentioned previously. At a superficial level, both may be seen as referring to failure to meet targets; however Pressman and Wildavsky's original concept (1973) is based on a quantifiable sequence of decision points. Under ICZM, where there is no easily identifiable hierarchy of actors and the nature of decisions does not relate explicitly to the deployment of resources, the implementation deficit concept is therefore not applicable.

Another shortcoming of the top-down approach is its failure to consider the concretisation of policy which continues after legislation has been made (Ham and Hill, 1993:107). Although decision making may form an earlier stage of the policy cycle, some aspects of decision making may not be feasible until implementation occurs, such as obtaining full information and delegating responsibilities. Decisions may lead to unforeseen conflict or require ongoing negotiations, a dimension which leads Wildavsky (with Angela Browne) in the 1983 edition of *Implementation* to consider "Implementation as mutual adaptation". In this case the top down approach is unable to predict the chain of implementing decisions (1983:208) and thus Wildavsky suggests that "a case can be made for the re-conceptualisation of implementation as an exploratory rather than an unquestioning, instrumental and even subservient type of process" (Pressman and Wildavsky, 1973:256, in Laws and Hajer, 2006).

As an alternative to the top-down approach to implementation studies, the bottom-up approach takes those at the bottom of the chain of command - conceptualised as "street level bureaucrats" by Lipsky (1980), who are able to exercise their own discretion in decision making and actions – and follows a process of "backward mapping". This term was defined by Richard Elmore as:

> *"'Backward reasoning' from the individual and organisational choices that are the hub of the problem to which policy is addressed, to the rules, procedures and structures that have the closest proximity to those choices, to the policy instruments available to affect those things, and hence to feasible policy objectives"* (Elmore, 1981:1).

In doing so, Elmore (1981) questions the ability of actors to influence behaviour and the resources required to do so, and thus bottom-up implementation research is able to focus on the formal and informal relationships between actors in a policy subsystem (Howlett and Ramesh, 2003:190), negotiations and choices between alternatives. The main advantage of studying implementation from a bottom-up perspective is that it is said to be free from assumptions about causal relationships and structural relations between actors and agencies (Ham and Hill, 1993:109). Hjern (and Porter, 1981; and Hull, 1982) goes further to propose that in the absence of such assumptions, networks may be constructed empirically by researchers. This point therefore has particular relevance for examining ICZM, where coastal partnerships set their own agendas in the absence of a mandate from higher levels of government.

May (1991) notes the existence of "policies without publics", i.e. policies made with low levels of public participation and weakly developed issue networks which the researcher must be aware of in trying to observe implementation from a bottom up perspective, however this situation may be unlikely in coastal partnerships as partnerships by their very nature attempt to be inclusive of a broad range of stakeholders.

Whilst top down and bottom up approaches both have their advantages and disadvantages, authors in the field of policy science have found them to be complementary rather than contradictory (see Sabatier, 1993a, in Howlett and Ramesh, 2003:190). This has lead to a synthesis or third generation of implementation research, in which top-down elements such as the use of policy instruments and tools to structure implementation are considered alongside the motivations and actions of street level bureaucrats (Birkland, 2005:187). Furthermore, the concept of implementation as an ongoing process is supported by various authors including Barrett and Fudge, who state that "the policy-action relationship

is not a linear step-by-step progression by which a policy is translated into anticipated consequences, but is better described as interactive and recursive" (1981:251).

Friedman, taking an organisational analysis approach to policy, recognises the role of non-governmental actors as implementing organisations in modern governance arrangements, suggesting that "it is essential for policy analysis to consider not only what government does but also what is done or not done outside of government. Taking this broader view, organisations may have substantial impacts both on the design of public programs and on the social policy environment outside of government" (2006:483). This statement not only reiterates the possibility of a synthesised approach to studying implementation, but also the collaborative nature of policy making and implementation, which will be explored more fully in a later section of this chapter.

Returning to evaluation as the final stage of the policy cycle, evaluation may be legally required at a particular time following policy implementation, coincide with business cycles or follow a political call for review (for example after a controversy or change in government). Evaluation may be undertaken by government, private consultants, involving the public and most of the key actors arrayed in policy subsystems in a variety of formal and informal venues for assessing and critiquing policy outcomes and processes (Howlett and Ramesh, 2003:209).

Whilst evaluation can take rational, objective forms reliant on empirical data from natural and physical sciences, the inherently political nature of policy evaluation (which has already been noted) is a crucial element of decision making for the future of a particular policy. Bovens, 'tHart and Kuipers, considering knowledge of policy outcomes as the product of discursive interaction between competing frameworks (Yanow, 2000, in Bovens *et al* 2006) note that a socially constructed approach may recognise the political dimension to evaluation, but not necessarily lead to better judgements.

Therefore it may be desirable for policy analysts and decision makers to be reflective about their own constructions of policy success and failure to facilitate policy learning and the continuous reframing of policy problems in successive iterations of the policy cycle.

4.3 a Collaborative Perspective on the Policy Cycle

In the previous section, policy making and implementation were demonstrated to involve a series of ongoing interactions between stakeholders in debating the nature of the problem to be addressed,

devising and implementing solutions and evaluating progress. Alongside this, the need for joint or partnership working between stakeholders to deliver measures that tackle cross cutting issues such as coastal, marine and catchment management have been elaborated in Chapters 1 and 2.

Whilst "stakeholder participation" in ICZM/MP/RBMP is enshrined in the principles of *ICZM Recommendation 2002/413/EC* and legislation for MP/RBMP, the collaborative process needed to deliver measures on the ground is a complex political and organisational issue which requires special consideration. Understanding the dynamics within and between those stakeholders may help to reveal existing examples of good practice and provide ways in which deliberative actions can be improved, and thus the focus of the literature review now turns to organisational and collaborative theories which may provide further perspective on the arrangements of coastal/marine/catchment governance.

In Chapter Two the work of Lymbery (2008) on the practicalities of collaborative working in coastal partnerships, which cites the work of Chris Huxham (1996) and Barbara Gray (1996) in order to provide organisational perspectives on why, when and how collaboration should take place was introduced. Gray's work, alongside the communicative planning literature also informs the writings of Judith Innes and David Booher (2003) on consensus building in environmental management.

The main reasons why collaborative working occurs have been considered in previous chapters (for example legal mandates, the need for a "joined-up" approach to policies, pooling resources and ensuring legitimacy of actions), but one further reason is advanced by Huxham, namely the idea of "Creating collaborative advantage" (1996). Huxham states that:

> *"Collaborative advantage will be achieved when something unusually creative is produced – perhaps an objective is met – that no organisation could have produced on its own and when each organisation, through collaboration, is able to achieve its own objective better than it could alone. In some cases, it should also be possible to achieve some higher level... objectives for society as a whole rather than just for the participating organisations"* (Huxham, 1993:603).

In this definition, Huxham (1996) emphasises outcomes that can only be achieved through joint venture – although acknowledging that in some cases partnerships need not have such ambitious objectives. Yet the notion of collaborative advantage suggests that potential synergies arising from a collaborative venture may be greater than the sum of its parts. Similarly to Huxham's concept of collaborative advantage, Sullivan and Skelcher) note that key drivers for collaboration include the aspiration to

achieve positive outcomes for the system as a whole rather than simply for sectional gain by the participating organisations (2002:37).

In this sense, ICZM itself may be seen as more than simply working together – the intangible benefits or "invisible products" of collaboration as described by Hickling (1994, in Huxham 1996:15) that are the product of engaging in a discursive process may come to the fore.

With regards to the form collaborative working should take, Barbara Gray proposes a model of inter-organisational collaboration which focuses on domain level relationships, that is, relationships between a set of actors joined by a common problem or interest (1985:912) much in the same way that stakeholders may be concerned with the coastal, marine or catchment domains.

Acknowledging the existence of "wicked" problems, Gray notes that attempts by individual organisations to manage problems are unsuccessful because at one level they are "uncoordinated and create unanticipated problems for other stakeholders" (1985:914) and "competition for resources from the contextual environment allows some stakeholders to promote their values at the expense of others" (Warren, 1967, in Gray, *Ibid*). This uneven distribution of power within the domain has the potential to frustrate a broader, consensus-based approach to dealing with problems.

Both of the statements above thus highlight the need for integration that is achieved through a deliberative process. Furthermore, Gray points to the manner in which organisations socially construct problems at organisational rather than domain level as a reason for their inability to manage dynamic external influences. For institutions to adopt truly adaptive and integrated management they must be willing to engage in a wider discourse about the nature of the problem and the co-production of shared meanings, i.e. a communicative process. Collaborative practices which sustain constant interaction and learning (Healey et al, 2000, in Innes and Booher, 2003:56) enable stakeholders to be more adaptive.

Gray's model therefore takes the idea of inter-organisational collaboration and proposes a way in which "domain level dynamics can be managed to improve the likelihood that collaborative relationships are achieved and sustained" (1985:916). The process of collaborative formation is divided into three phases, and within these phases several conditions facilitating inter-organisational collaboration are outlined, along with a number of propositions about the circumstances which may enable or prevent more effective inter-organisational collaboration. The phases are defined as follows:

1. Problem setting - concerned with the identification of the stakeholders within a domain and mutual acknowledgement of the issue which joins them.
2. Direction setting – stakeholders articulate the values which guide their individual pursuits and begin to identify and appreciate a sense of common purpose.
3. Structuring - referred to as implementation in Gray (1989, 1996). Stakeholders undertake negotiations to create a mutually acceptable regulative framework for the domain.

Source: Gray, 1985

Each phase is explained in more detail below.

4.3.1 Problem Setting

In the problem setting stage, collaborative action is initiated through stakeholders coming to appreciate their interdependence with other stakeholders in the domain. In Gray's work this represents a turn away from traditional and potentially counterproductive adversarial approaches to problem solving, recognising cost savings and other synergies that may arise from a negotiated outcome. Schemerhorn (1975) also points to the cultural norms that act as an incentive to collaborative working, and in the UK context the change from government to a culture of governance, partnership working and the statutory requirements for stakeholder consultation in policy and plan making provide a framework that allows collaboration to take place. To this end, Gray proposes:

- *1. Problem-setting efforts are enhanced when stakeholders expect that the benefits of collaborating will outweigh the costs and when prevailing norms support collaboration. If positive expectations are not present, incentives to induce participation will be necessary*[5]
- *2. the greater the degree of recognised interdependence among stakeholders, the greater the likelihood of initiating collaboration.*

The first query Gray (1985:918) deals with is who should participate? Gray (1985) proposes that:

[5] The propositions are used here in a slightly different order to that stated in Gray (1985) and thus the numbers used do not correspond to the propositions in the original article.

- *3. The stakeholder set needs to reflect the complexity of the problem under consideration if collaboration is to occur.*
- *3a. From an information standpoint, the more stakeholders who participate in problem solving, the more effective the collaboration will be.*
- *3b. Efforts to convene all stakeholders simultaneously will likely be thwarted by changing dynamics of the domain. Therefore, inclusion of stakeholders should be viewed as a process of continual adaptation.*

The process of identifying stakeholders in collaboration is also bound with issues of legitimacy. To be a "legitimate" stakeholder, according to Gray, means having the perceived right and capacity to participate in the developmental process (1985:921), either by belonging to a group that may be impacted on by decisions made in the collaborative process, or by possessing resources (financial, information, skills) that may be utilised as part of the collaboration.

Gray's definition of legitimacy suggests therefore that there may be some limit as to who might participate in collaboration, in contrast to the open nature of communicative theory promoted by Habermas (see Allmendinger, 2002). This perspective also differs somewhat from the idea of legitimacy as endorsement or acceptance amongst an audience beyond the domain as Innes and Booher (2003) cite, or Lotia and Hardy's idea that stakeholders may engage in collaboration to gain legitimacy through demonstrating their adherence to institutional norms (in Cropper *et al,* 2008:370). In relation to stakeholder legitimacy, Gray therefore proposes that:

- *4. Shared perceptions of legitimacy are necessary to initiate problem-setting. Perceptions of legitimacy will be shaped by historical relations and the existing power distribution among stakeholders.*
- *4a. Exclusion of legitimate stakeholders during problem setting will constrain subsequent implementation of solutions.*

Whilst some stakeholders may be easily identified, continuous discourse and exchanges of information between stakeholders regarding the nature of the problem may reveal further interdependencies. In any case, the configuration of stakeholders within a domain is dynamic (Gray 1985:919) and highly dependent on the prevailing discourse or the state of progress towards implementing a plan.

The issue of legitimacy also applies to the convenor of a collaborative venture. In some cases there may be a natural or obvious convenor, i.e. an organisation or institutional sponsor that is already part of an established network. Wood and Gray (1991) have observed other ways in which a convenor may intervene in the domain via formal or informal means – these include the invitation by stakeholders of someone possessing authority to become the convenor, powerful individuals or organisations may use mandate, their formal authority or their ability to provide resources as an incentive to bring stakeholders in to collaborative arrangements. Informally, a good facilitator who can bring stakeholders together through their own knowledge of the domain and negotiations, and finally individuals who lack authority but are motivated to collaborate (in the manner of policy entrepreneurs), may use their knowledge and enthusiasm to convene stakeholders. Thus:

- *5. Collaboration will be enhanced by convenors who possess legitimate authority and appreciative skills and who can serve as reticulists to rally other stakeholders to participate.*

Without sufficient endorsement or acknowledgement of the convenor's legitimate right to organise a domain, stakeholders may be less willing to participate in the collaborative process, and convenors may find it more difficult to exert authority over stakeholders. Healey (2006:333) points out that in some instances, a link to formal government in collaboration, which is legitimised by its democratic mandate may be considered appropriate, and in the case of coastal, marine and catchment regimes this may be possible through the inclusion of elected members or civil servants in the structures of governance for each regime respectively. However one of the most important characteristics of the convenor should be their perceived neutrality, as convenors themselves may be subject to or exert their own powers to influence collaborative actions (see Gray and Hay, 1986).

4.3.2 Direction Setting

Hardy and Phillips (1998, in Lotia and Hardy, 2008:376) note that the way in which a problem is defined has important consequences for the direction of collaboration, and therefore direction setting and the search for coincident values provides opportunities for stakeholders to not only consider new ways of solving problems, but also can lead stakeholders to undergo a more fundamental learning process

whereby they may reframe the problem or decide that they need to apply different values (Schön and Rein, in Hajer and Wagenaar, 2003:45). Such "double loop" learning represents a further evolution of collaborative arrangements that may widen the scope of activities beyond the interests which first brought stakeholders together. Gray therefore states that:

- *6. Direction-setting is greatly facilitated by coincidence in values among stakeholders. Joint information search by the stakeholders contributes to the emergence of coincident values and mutually agreeable directions for the domain.*

At this point in collaborative working, an unequal balance of power between stakeholders may affect efforts to reach mutual agreement in direction setting. Fairclough (1992, in Lotia and Hardy, 2008:377), in the manner of Foucault, observes that power is embedded in the existing patterns of talk and organisational practices, thus even in the collaborative arena there is potential for dominant stakeholders to shape the creation of meaning and direction for the collaboration in their own interests. Whilst such an imbalance in the powers of stakeholders can be problematic, it is not necessary for power to be distributed evenly among all stakeholders as this may in fact produce inertia.

- *7. Collaboration will be enhanced when power is dispersed among several rather than among just a few stakeholders. An equal power distribution is not necessary and may prove undesirable since it can provoke stalemate and inaction. However, a sufficient distribution of power is necessary to insure that all stakeholders can influence direction-setting.*

Without some redistribution of power, less powerful stakeholders may become disenfranchised, but this may be overcome by a sustained recognition of interdependence and the benefits of creating collaborative advantage.

4.3.3 Structuring

Following problem setting and direction setting, a formalisation of relations among stakeholders (Gray 1985:928) may be necessary to maintain collaborative action. Reinforcing the interdependence of stakeholders through assigning them roles and responsibilities will not only empower stakeholders to influence the domain but also facilitate the implementation of agreed plans. To this end, Gray proposes that:

- *8. Structuring will occur when stakeholders perceive that continued dependence upon each other is necessary to implement their desired directions for the domain.*

However, Innes and Booher note that tasks must be allocated for which stakeholders must both be interest and have expertise in (2003:37).

Gray observes that the process of structuring may be imposed by external mandate (1985: 928) – in the case of coastal, marine and catchment governance central government and its executive agencies may provide the impetus for doing so, but Gray points out that:

- *9. Mandate alone will not generate conditions conducive to collaboration. However, coupled with other conditions (e.g. recognition of interdependence and balance of power), mandate can provide a structural framework for ongoing regulation of the domain.*

May observes in relation to environmental management in New South Wales, Australia and New Zealand, that cooperative rather than coercive policies still require a high level of commitment and capacity from stakeholders in order to be successful (1995:113).

Power remains an important feature of collaboration in the structuring phase, although at this stage the concern is less to do with ensuring an equitable dispersal of power among stakeholders who wish to influence the problem and direction setting activities of the domain, and more to do with the redistribution of power to the appropriate stakeholders to enable agreed actions within the domain.

- *10. Effective structuring involves negotiation among all stakeholders about how to regulate the domain, including negotiations about the implementation of actions and the power distribution necessary to do so. One outcome of structuring is an agreed upon allocation of power within the domain.*

As a potential source of conflict, the redistribution of power and resources between stakeholders may require a significant amount of bargaining to ensure agreement on the structures that will govern the future direction of the domain. In a truly reciprocal dialogue, bargaining does not imply tradeoffs but rather a search for mutually agreeable and plausible strategies (Innes and Booher, 2003:42).

One of the final conditions Gray cites as contributing to more successful collaboration is the geographical proximity of stakeholders, which may suggest a degree of interdependency is established prior to a specific collaborative venture and reducing cultural/financial barriers to interaction.

- *11. Geographic proximity facilitates structuring. Local level initiatives can best capture the advantages associated with geography.*

In the context of coastal, marine and catchment governance which is to a great extent spatially defined, this may be considered an obvious statement, but proximity is not an indicator of shared interests and thus the problem and direction setting phases remain crucial to ensuring effective collaboration.

The last condition which facilitates collaboration is the desire for stakeholders in the domain to influence their contextual environment. By organising into coalitions that can engage others through lobbying, campaigning and establishing links to other networks, stakeholders are able to manage the direction of their own domain more effectively.

- *12. Successful implementation of collaborative agreements is contingent upon the stakeholders' collective ability to positively manage changes in their contextual environment. This involves monitoring changes and building relationships with actors outside the domain to insure that domain-level agreements are carried out.*

Table 4b summarises the conditions which Gray (1985) identifies as facilitating inter-organisational collaboration, divided into phases.

Table 4b: Conditions facilitating inter-organisational collaboration

Problem setting	Direction setting	Structuring
Recognition of interdependence	Coincidence of values	High degree of ongoing interdependence
Identification of a requisite number of stakeholders	Dispersion of power among stakeholders	External mandates
Perceptions of legitimacy among stakeholders		Redistribution of power
Legitimate/skilled convenor		Influencing the contextual environment
Positive beliefs about outcomes		
Shared access to power		

Source: Gray, 1985:918

To sum up, the Gray model of inter-organisational collaboration reinforces the view of policy making and implementation as an iterative, discursive process which has been demonstrated in the examination of the policy cycle earlier in this chapter. Similarly to the policy cycle, Gray (1996, citing Inskip, 1993) notes that some phases are not necessarily separate and distinct but may run into each other and feed back to earlier phases. Problems are continually reconstructed by stakeholders, and with progress towards agreed outcomes Selin and Chavez note:

> "Impacts are assessed and stakeholders re-evaluate their interest in proceeding with further collaboration" (1995:192).

This provides stakeholders with an opportunity to return to the problem setting stage, maintaining the cyclical process of collaborative working.

The model of collaboration proposed by Gray is not without its faults, and both Gray (1989) and Selin and Chavez (1995) highlight some of the problems that may be encountered in trying to undertake collaborative work, such as relational factors, i.e. a history of conflict and mistrust amongst stakeholders

and deeply entrenched institutional cultures that do not encourage innovative procedures, although it should be noted that such attitudes are changing in more contemporary governance approaches.

The main limitation of Gray's model, and a point that is applied more generally to collaborative working in the UK governance context, is that discourse presenting partnerships as "good" displays a functionalist orientation, that is, seeking to improve the management of a process in order to enhance the efficiency and effectiveness of individual organisations, but masking the political struggles which take place within collaborations (Lotia and Hardy, in Cropper *et al,* 2008:371 and 378). Wood (and Gray, 1991) later acknowledge there may be tensions between self and collective interests within a collaboration – indeed self interest is a motivating factor for stakeholders to join a collaboration – but it is this need and potential for stakeholders to benefit which drives collaboration (1991:161). This argument however does not address the central assumption of collaboration that discursive interaction is conducive to power sharing and trust between stakeholders.

In a practical context, Huxham and Vangen (2005) identify the ways in which tensions may manifest in collaborative settings, for example whether or not to try and bring everyone's aims into the open, clarify motivations and tie down agreements, although communicative action theorists, based on Habermas' concept of ideal speech, may argue that the first of these two points is essential. Tensions may also be apparent in when, or how much to encourage representatives to identify with the collaboration rather than their own organisation (2005:233). Huxham and Vangen also suggest that managers of the collaboration may isolate, deconstruct and reflect upon tensions in order to learn and intervene in particular situations. The tensions identified may be the result of unequal power between stakeholders, but in Huxham and Vangen's approach to managing tension is based on pragmatism and satisficing rather than a transformational model of partnership (2005:238).

Gray also suggests ways in which interventions can be made in inter-organisational collaborations to moderate the factors which may prevent collaboration, in this case dealing more directly with issues of power, for example noting that

> "When more powerful parties have discursive legitimacy (Hardy and Phillips, 1998) and/or control access to the decision making arena (Schumaker 1975; Bouwen *et al* 1999; Gray 2004), a critical challenge of intervention is to ensure that cooptation of lower power partners does not occur" (Gray, in Cropper *et al,* 2008:681).

Gray goes on to note that interveners can help to level power differences by building checks and balances to prevent cooptation and ensure elite compliance with collaborative agreements (Ibid, p682), which suggests that formal means such as watchdogs can be adopted to prevent the abuse of partnerships by more powerful stakeholders. The ways in which issues of power are acknowledged in coastal planning regimes through discursive interaction may therefore form a further line in investigating the different trajectories of implementation, and discussion on how issues of unequal power are dealt with in coastal partnerships.

Bringing together the theoretical strands that have been examined in the literature review, it can be seen that the processes of social construction, policy making and collaboration are closely interlinked. Taking the social construction of a problem (Hannigan's model) as a starting point, policy making and implementation are driven by attempts to define a problem or issue and the design of measures to address the problem in a manner which satisfies stakeholders. Similarly, the collaborative process is based upon a continuous dialogue between stakeholders in order to build consensus about a problem and establish a common vision for the future of a domain. In both the policy cycle and collaborative processes, the social construction and reconstruction of problems allows new solutions to be sought. These concepts can therefore be combined into a model of collaborative policy making, which is now explained.

4.4 A synthesis model of collaborative policy making

In examining collaborative work to produce policies for the Wales Spatial Plan, Jarvis (2007) demonstrated that the phases of collaboration outlined by Gray (1985) can be overlaid onto phases of the policy cycle to operationalise theories of communicative rationality within the policy process in an attempt to ensure that a full discourse or a more communicatively rational discourse takes place. This model of collaborative policy making has been adapted by the author based on the stages of policy making outlined by Howlett and Ramesh (2003), the prerequisites outlined by Hannigan (1995) for the social construction of an environmental problem and the conditions facilitating collaboration outlined by Gray (1985) to show how the social construction of a problem not only forms the starting point for policy making, but continues to drive actions in each stage of the policy cycle. A summary of this synthesis is shown in table 4c (below).

In this case, the conditions have been reordered to reflect more accurately how decision making may proceed. It is also acknowledged that certain conditions may be crucial over more than one stage of the policy process, and so this table can only be seen as an approximation of stages and conditions that are present. A description of the stages in the new collaborative policy model is provided in the next section.

Table 4c: Stages of the Policy Cycle and Collaboration

Stage of Collaborative Policy Making	Policy Cycle Stage (Howlett and Ramesh, 2003)	Phases of Collaborative Working (Gray, 1985)	Conditions for Socially Constructing an Environmental Problem and Facilitating Inter-Organisational Collaboration (based on Hannigan, 1995, Kingdon, 1995 and Gray, 1985)
Problem Recognition	Agenda Setting	Problem Setting	Scientific evidence and authority Popularisers Use of the media Dramatisation Economic incentives Institutional sponsors Feedback from previous initiatives
Consensus Building			Interdependence Identification of stakeholders Legitimacy among stakeholders Convenor Beliefs about outcomes
Exploring Options	Policy Formulation	Direction Setting	Coincidence of values Dispersion of power
Decision Making	Decision Making	Structuring	External mandates Degree of ongoing interdependence
Structuring and Implementation	Implementation and Evaluation		Redistribution of power Contextual Environment

Source: Author

4.4.1 Problem Recognition

This phase begins with reference to Kingdon's model of agenda setting (discussed in Chapter Three) which describes how a claim, once constructed, may then move from the systematic to the governmental agenda. Claims can be based upon the outcomes of previous initiatives, and thus Hannigan (1995) and Kingdon (1995) are included in the table as preceding the conditions facilitating collaboration but following evaluation to provide the link between new iterations of the policy cycle. Problem recognition therefore begins with the construction or reconstruction of a claim.

4.4.2 Consensus Building

Consensus building is considered as a distinct phase in this revised model as traditional policy cycle models tend to be based upon a top-down approach to policy making focused on a narrow set of stakeholders (see Innes and Booher, 2000, and Jarvis, 2007:83) which fails to reflect the networks of multi-level governance and interdependencies that exist in contemporary policy making. At this stage of policy making the domain begins to organise itself, with stakeholders beginning to appreciate their interdependencies based on a shared observation of a problem, and they may identify other stakeholders who should be included in the domain. The search for stakeholders may continue throughout the policy cycle, as new stakeholders may be brought into collaboration through discussions on the nature of the problem and what is to be done about it.

At this point ensuring the legitimacy of stakeholders is also important – building consensus may be about who legitimately has the right to be involved in policy making as much as it is about agreeing upon the nature of the problem. A convenor or institutional sponsor, having emerged from earlier constructions of the problem or through the initial reorientation of the domain towards collaborative working, can play a role in assembling what is considered the appropriate mix of stakeholders. In addition, in building policy from the bottom-up as a voluntary exercise where mandate and/or the element of coercion is absent, the need for stakeholders to share beliefs about the positive benefits of working together in a communicative process is essential.

4.4.3 Exploring Options

Exploring options coincides with Howlett and Ramesh's original idea of policy formulation (2003), with the design of potential future policies proceeding on the basis of finding coincident values between stakeholders and the consolidation of networks or policy communities. Subsequently, negotiating and decision making will be influenced by the dispersal of power, but a continued acknowledgement of interdependence can play a critical role in ensuring that differing opinions and policy options are given due consideration.

4.4.4 Decision Making

Interdependence continues to be a factor in the decision making phase of the policy process – whilst Gray relates ongoing interdependence to the process of formalising or structuring collaborative activities, the point made by Innes and Booher regarding the need to allocate tasks to stakeholders that make the best use of their interests and expertise in order to retain their involvement (2003:37) may also impact upon the decision that are made.

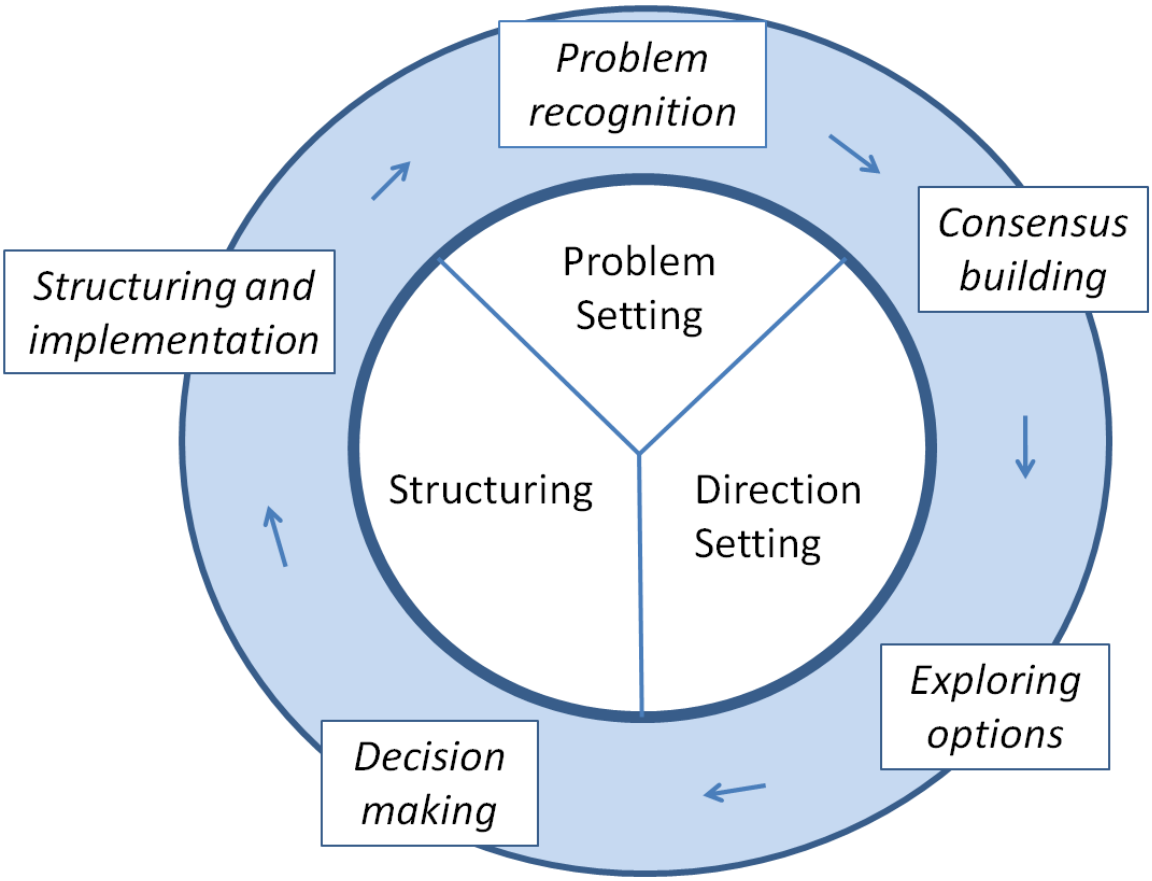
The influence of external mandates affects decision making in as much as some decision making power may be taken away from stakeholders if there are external pressures forcing a particular way of organisation or the use of a specific measure, for example from higher levels of government (Milward, 1982, in Gray, 85:929).

4.4.5 Structuring and Implementation

In this final phase of collaborative policy making, structuring the domain and allocation of responsibilities enables implementation to take place. The formalisation of collaborative relationships through legal responsibilities or agreed upon terms of reference may confer new powers or a redistribution of powers among stakeholders. As implementation proceeds, stakeholders may gain the collective power to influence their contextual environment, through increased political power or control over a greater share of resources. Although not considered explicitly, evaluating the progress of implementation efforts may give impetus to the reframing of problems and direction setting, thus forming a new iteration of the collaborative policy making process.

Figure 4.6 below shows how the phases of the collaborative policy making cycle can be overlaid onto Gray's stages of inter-organisational collaboration. The inner circle of the diagram shows the stages from Gray's model, running in a clockwise sequence, and the outer circle the stages in collaborative policy making which have been described above.

Figure 4.6 the Collaborative Policy Making Cycle



Source: Author, based on Jarvis (2007)

As with models of the policy cycle previously explored, this revised version can only provide an approximation of the sequence of events making up the policy process and attempts to combine this process with Gray's approach in the most appropriate way given the description of conditions facilitating collaboration. In doing so, the revised model provides a more detailed set of factors influencing the policy process that may be used to examine and understand the differences in implementation that have contributed to the current context of ICZM, MP and RBMP.

4.5 Conclusions

Following the analysis in Chapter Three of how coastal, marine and catchment problems may be socially constructed and also recognising that the construction of a problem is only the first stage in a broader process of policy making and action, this chapter has sought to provide the link from a problem to the implementation of a solution through examining both models of the policy process and its constituent parts, plus models of collaborative action which provide a more practical context within which to consider how policy making for coastal planning regimes may work.

In doing so, it has been found that:

- Despite its limitations in providing a "realistic" model of policy making, the policy cycle literature remains a useful heuristic device for understanding the decision making process, with each stage further understood through reference to a number of policy subsystems such as policy communities, issue networks, incrementalism and mixed scanning. The stages model therefore forms the basic framework for the development of coastal zone, marine and river basin management planning.
- Policy formulation is based on learning from experience and interaction with other stakeholders. In this sense there are no entirely new ideas, rather there is a continuous reconstruction of the problem and negotiations between stakeholders to find the most appropriate solution.
- The implementation of policy may be viewed from a top down or bottom up perspective, depending upon the presence or absence of legislation which structures the implementation process (Sabatier, 1986:37), but these perspectives may also be seen as complementary, with a synthesis of approaches providing insights into the structure and agents of implementation.
- Considering the policy process through a collaborative perspective such as that advocated by Barbara Gray (1985 and 1989) provides a practical setting for the construction and discussion of problems in order to build consensus about solutions.

In summarising this chapter, attention has been brought to the way in which the social construction of a problem continues far beyond the model outlined by John Hannigan (1995) in a process of discursive interaction, right through all stages of policy making and implementation. Furthermore, the literature examined in this chapter provides a framework which can be used to break down and analyse the different factors affecting the implementation of coastal planning regimes. The next chapter describes in

detail the way in which these concepts will be applied to the further analysis of coastal planning regimes in order to provide insights into improving the implementation of ICZM.

CHAPTER 5: METHODOLOGY – Putting Collaboration into Practice: a Framework for Evaluating Collaboration in Coastal Planning Regimes

5.1 Introduction

Following on from the contextual and conceptual research contained within Chapters One to Four of this thesis, Chapter Five now develops the theoretical framework that will be used in the second phase of empirical research to meet Objective Four – *to determine what factors are most important in practice for constructing claims about a coastal problem, and provide a reappraisal of the social construction model proposed by John Hannigan* – and Objective Five – *to evaluate how collaboration is embedded within the plan making processes of coastal organisations and provide recommendations as to how collaborative policy making may be improved.*

The previous chapters have provided the conceptual and contextual framework of the thesis by examining the ways in which an environmental problem can be socially constructed, focusing specifically on Hannigan's model as applied to marine, coastal and river catchment planning regimes. In doing so, it has shown that whilst representing an initial "problem recognition" stage of the policy cycle, the manner in which an environmental (particularly the coastal) problem is constructed can elicit weaker or stronger policy responses, i.e. a more formalised, statutory, top-down system or a more voluntary, bottom-up approach. However, Hannigan's model does not accurately reflect that some of the factors recognised as essential to the social construction of a problem may be of varying degrees of importance in the wider discourse about the nature of the problem and what is to be done about it.

The proposition that the model can be refined to acknowledge the possibility that certain factors may be more persuasive than others in the social construction of a problem for different coastal planning regimes thus becomes a first line of investigation for the second phase of empirical research.

Furthermore, as the social construction model only corresponds to the first stage of the policy cycle, there is a second issue to be addressed – namely how recognition of an environmental problem is translated into ameliorative policies and actions through the organisation of stakeholders in collaborative arrangements. The collaborative policy making model elaborated in Chapter Four provides a context in which steps towards implementation can be analysed. When the social construction of environmental problems is considered in conjunction with collaborative, top-down, bottom-up and participatory or communicative planning approaches to implementation which broadly correlate with

the implementation styles of ICZM, MP and RBMP respectively, these perspectives enable a more detailed analytical framework to be built.

By taking each stage of the policy cycle in turn and breaking it down into smaller steps or components, the opportunities presented and actions taken by stakeholders in coastal planning regimes can be analysed with reference to the features that characterise top-down/bottom-up methods of implementation, collaborative processes and styles of governance.

The following sections therefore outline in more detail the analytical framework which will be used to evaluate coastal management practice in relation to four key questions:

1. How are the conditions outlined by Hannigan for the successful social construction of an environmental problem viewed in relation to coastal planning regimes?

2. Which preconditions are most significant in making the case for action for ICZM, MP and RBMP?

3. To what extent is the collaborative model proposed by Gray reflective of coastal planning practice?

4. As coastal planning regimes go through the policy cycle, what factors have the greatest influence on policy formulation and decision making?

The design of the methodology for this phase of the research seeks to both further understand the key concepts and issues at the macro scale, i.e. theories of the policy process, collaboration and implementation, which have been identified through the literature review, and also consider whether these normative positions accurately reflect the process of decision making and implementation within ICZM and other coastal planning regimes. Such comparisons are facilitated through the collection of empirical data and the triangulation of multiple data sources, using the revised collaborative policy making framework to structure data collection.

As has been previously noted, Lymbery (2008) has outlined the potential benefits and pitfalls of partnership or collaborative working to deliver ICZM, drawing on the work of Gray (1985, 1996), the

Audit Commission (1998) and Sullivan and Skelcher (2002). However beyond Lymbery's own observations , to date this framework of understanding has not been systematically applied to the work of coastal partnerships in order to evaluate what facets of collaborative working are employed throughout their decision making processes. The research design therefore will attempt to operationalise the collaborative concept in relation to more specific examples of ICZM practice.

5.2 Data Collection Strategy: a Case Study Approach

Given the analytical perspective derived from the literature review, exploring the historical development of coastal planning regimes and their implementation, a case study approach has been chosen for the collection and analysis of empirical data. According to Yin, a case study is an empirical enquiry that investigates a contemporary phenomenon within its real life context, especially when the boundaries between phenomenon and context are not clearly evident (2003:13). This is pertinent given the way in which environmental problems are seen as historically and culturally constituted. Indeed Denzin and Lincoln (2003) note that case study is a typical narrative form for enquiry founded on an interpretive paradigm such as social construction.

Research of this kind also allows for concentration on a particular case, or small set of cases (Robson, 2002) and thick or detailed description of the context in which the construction of a problem and implementation takes place. As this research takes ICZM in the wider context of coastal and marine governance to explain why certain issues and the measures proposed to address them move through the policy cycle, achieving formalised support and implementation more quickly than others, a multiple case study approach is considered an appropriate method of enquiry. This allows an appreciation of the relative significance of different factors in each instance and enables a comparison of the progress of different coastal planning regimes towards implementation.

The approach to the case studies is informed by the literature review and analysis of the preceding chapters, which has traced the social construction of coastal, marine, and river basin problems and the regimes developed in response and has situated these within the current context of spatial planning practice. Furthermore, the use of Gray's (1985) model of collaboration and the policy cycle literature has provided a systematic framework within which empirical data can be collected and evaluated against a set of normative criteria for improved ICZM implementation. The first stage in the case study work entailed a survey of coastal and estuary partnerships in operation in the UK in order to provide a

"sampling frame" from which case studies could be selected. This was followed by the main case study phase of work which consisted of a survey and structured interviews with representatives of the selected case study organisations.

A total of five case studies have been used – three ICZM cases and one each from MP and RBMP. This range was chosen to cover the three coastal regimes that have formed the basis of the literature review. In using a larger number of ICZM case studies, the enquiry continues to be weighted towards exploring collaboration and the implementation of ICZM in more depth.

In examining the social construction of the coastal problem and the development of ICZM, Marine Planning and River Basin Management have been used as comparators against which the trajectory of the ICZM regime in the UK has been assessed and therefore the empirical research therefore cannot consider the current performance of ICZM in isolation.

Despite each regime emerging at different periods in time, MP and RBMP have been considered as suitable comparators due to:

- Sharing broad sustainability objectives,
- The European dimension: each regime has been advocated (to a greater or lesser extent) by the EU for use by Member States, and
- The integrative nature of each regime – MP, RBMP and ICZM all represent attempts to integrate aspects of the physical environment, different sectors and institutional arrangements.

The literature review has also shown some differences in the ways that the case for each regime is socially constructed, and diverging trajectories in terms of the formalised support and progress towards implementation of each, with RBMP and MP achieving more sustained and greater support from higher levels of government (in the UK) than ICZM.

Thus a comparison of case studies from MP, RBMP and ICZM will enable an exploration of the factors contributing to the current state of each regime in more detail, from the initial stages of social construction (whilst at the same time testing the proposition that Hannigan's model can be refined), through to the establishment of legal frameworks and formal plan making procedures.

For each case study structured interviews were undertaken with key members within the hierarchy of the organisation, such as management board or steering group members. This data was supplemented

by additional questionnaire data obtained from the broader grouping of stakeholders, such as local residents, representatives of voluntary groups, private and public sector organisations.

In terms of case study selection, the range of ICZM initiatives currently in operation in the UK provides a spread of experience from which suitable examples can be drawn. However in the case of RBMP and MP, which have more recently established institutional frameworks, there are a limited number of practical examples to choose from. The next section provides an overview of the range of potential case studies and the criteria used to make a final selection.

5.3 Review of Coastal Organisations and Initiatives

In applying a case study methodology to the research, a mechanism must be sought which allows for a systematic and justifiable choice of case studies from a broader population or sampling frame. To this end, a review of potential case studies and the establishment of case study selection criteria has been carried out.

As has been previously noted, there are a wide range of coastal management organisations undertaking some form of activity in different parts of the UK. However, across the range of ICZM initiatives a number of well documented implementation failures (see for example Stojanovic and Shipman, 2007 and McGlashan, 2002) have produced a relatively uneven state of affairs with regards to the scale of activities and impacts of coastal partnerships.

Although classifying coastal partnerships as “successful” or otherwise is contentious given the range of objectives and activities undertaken, often with limited resources, this unevenness in development or activity levels needs to be considered in case study selection, to ensure that the case studies chosen provide a sufficient depth of experience and expertise to make a useful contribution to the data collected.

The following section therefore provides an overview of existing coastal, marine and river basin initiatives in the UK, from which potential case studies have been selected, and the rationale that has been applied to determine those case studies which may be suitable for further examination.

5.3.1 Establishing the Sampling Frame

As the research takes the form of a comparative case study approach, a comprehensive list of all the coastal, estuary, river basin and marine planning initiatives was required. This was obtained through a desktop study, utilising lists from previous reports on coastal/estuary partnerships (see Entec, 2008, Atkins, 2004, Stojanovic and Barker, 2008), journal articles and links to coastal partnership websites from umbrella organisations such as CoastNet, PISCES, the Scottish Coastal Forum and the Wales Coastal and Maritime Partnership. These resources were combined to produce a list of current (and some now defunct) potential ICZM case studies. The full list of organisations is included in Appendix A.

The Environment Agency website was used to obtain a list of all the River Basin Management Plan districts in the UK, and the DEFRA Marine web pages (in particular the "How did we get here?" section[6]) provided an albeit brief but complete list of marine planning initiatives.

Following this initial search, a total of 148 initiatives were found – 133 coastal/estuary partnerships and coastal groups, 13 river basin districts and two marine spatial planning projects.

Having compiled this list, groups with statutory responsibilities such as Coastal Groups (responsible for Shoreline Management Plans), Heritage Coasts, AONBs and European Marine Sites were excluded on the grounds that they have different governance arrangements that do not fit the "voluntary" model of partnerships that are the focus of the research (44 groups/partnerships in total). Groups that contained, but were not exclusively based on such designations were not discounted at this point.

Further investigation was then carried out in order to determine levels of activity within each of the potential case studies. In this instance, "activity" was taken to mean evidence that the project/organisation was continuing to function by means of recent publications, previous or future events such as partnership meetings, educational projects or activities such as beach cleans. A cut off point of one year prior to the approximate date of the desktop study (Autumn 2008) was applied to classify no/low levels of activity and eliminate those cases from further investigation. Whilst it may have been useful to consider ICZM initiatives that had been wound up or discontinued activity as case studies and investigate the particular reasons for their short lifespan, "inactive" organisations were ruled out on the grounds of practicalities – those being that it may be difficult to trace sufficient numbers of individuals involved to yield a more rounded set of interview data and questionnaire responses related

[6] See www.defra.gov.uk/

to the functioning of that initiative. As a result a further 22 coastal partnerships were discounted for insufficient evidence of activity.

At this stage, all river basin management plans remained potential case studies given the relatively new and concurrent nature of the RBMP making cycle. For marine planning, only two possible case studies were found - the DEFRA/JNCC Irish Sea Pilot for Marine Conservation and Sustainable Development, and the ABPmer/Terence O'Rourke Marine Spatial Planning Pilot for DEFRA (also known as the Marine Spatial Planning Pilot Consortium). These projects finished in 2004 and 2006 respectively, thus placing them in an inactive classification. However, to discount both projects from further investigation would result in the exclusion of marine planning altogether from the list of potential case studies. A decision was therefore taken that both projects should be included at this point, and a final selection of one marine case study should be deferred until further selection criteria could be considered.

The next stage of refinement involved determining the extent of ICZM use within coastal/estuary initiatives. In reviewing the aims and objectives of each coastal partnership, attention was paid to whether or not the organisation actively supports ICZM, either by the use of ICZM as an objective in its own right, or stating that ICZM will be promoted or used in some way to achieve given objectives. To verify that potential case studies were in fact engaged in ICZM practice, further scrutiny of the aims, objectives and activities of the coastal organisations was required. In this instance, explicit reference to the use or advocacy of ICZM was sought by referring to partnership websites, strategies and business plans where they were available. Phrases such as

> *"The Devon Maritime Forum, and other coastal partnerships, aim to deliver better ICZM through improved communications and stakeholder participation"*
>
> (http://www.devonmaritimeforum.org.ukindex/czm.htm)

And

> *"Maintaining a strategic, integrated overview of the Moray Firth is a key role of the Partnership and a critical component of Integrated Coastal Zone Management"*
>
> (http://www.morayfirth-partnership.org/work-2-core.html)

Were considered to be indicators of ICZM use that would allow the initiative to be considered for further investigation. Those organisations that used or promoted ICZM in some way were considered more suitable for case study selection as it is the continuing use of ICZM, the current state of implementation and how it can be improved through collaboration and integration that is the main focus of the case

study enquiry. Reasons for organisations not taking up ICZM or discontinuing its use do remain of interest, but this issue is partially addressed through some of the literature review findings on the problems associated with ICZM implementation and may also feature in the more detailed case study examinations.

At this point, the number of ICZM initiatives was reduced from 133 (including Coastal Groups and statutory designations) to 37 possible case studies.

In the final selection of ICZM case studies, the following factors were also considered:

- **Time in operation:** the length of time that the coastal partnership had been in operation was considered important as more established partnerships have been able in theory, to benefit from previous experiences of both success and overcoming organisational difficulties in order to achieve more refined or sophisticated structures of participation, governance and implementation. Within these more established partnerships, individuals who have been associated with the partnership (or coastal issues more generally) will be able to reflect upon changes in marine and coastal policy which may have influenced the direction of their organisation and thus provide some insight into both the internal and external forces shaping ICZM delivery. On the other hand, newer organisations may have been formed with an understanding of the previous problems of implementation and thus may demonstrate different types of organisation and management practices.

- **Geographical Spread:** it was felt that it would be pertinent to include coastal partnerships from England, Scotland and Wales in order to provide scope for including areas subject to different types of pressures (environmental, social and economic), and perhaps more importantly offered the opportunity to examine the ways in which ICZM is viewed and has progressed under the devolved administrations.

- **Other issues:** in this case other notable factors contributing to the work of individual coastal partnerships (e.g. special projects, recognition of achievements or good practice, number/complexity of issues under the partnership's remit) were taken into consideration.

Following the review of coastal partnerships and other potential case studies, the five case studies that were chosen are outlined below. The following three ICZM case studies have been chosen:

5.3.2 England: Dorset Coast Forum

The Dorset Coast Forum was set up in 1995 and is hosted by Dorset County Council. Dorset Coast Forum covers the area of coastline and inshore areas from Lyme Regis in the west of Dorset to Christchurch in the east (see Map A). The Dorset Coast is home to many harbour towns and seaside resorts and holds a number of designations for its natural resources (Heritage Coast, AONB, SPA, SAC).

In the period 1996-1999 the Dorset Coast Forum was involved in an EU ICZM Demonstration Project centred on the production of an integrated management strategy (published 1999 and reviewed 2005). Recently DCF has begun the C-Scope (Combining Sea and COastal Planning in Europe) project, which looks at producing a new marine spatial plan and increased stakeholder engagement in ICZM.

This case study has therefore been chosen as it represents a relatively successful and forward looking partnership in terms of the projects it has undertaken first as an ICZM Demonstration Project and now looking at building capacity for MP.

5.3.3 Wales/England: Severn Estuary Partnership

The SEP covers an area from Gloucester to Minehead on the English coast and Llantwit Major on the Welsh side of the Severn (see Map B) and incorporates a number of designated sites including SSSIs, conservation areas and an internationally recognised wetland (Ramsar site). The partnership was set up in 1995 as an independent, estuary - wide initiative led by local authorities and statutory agencies and is hosted in the School of Earth and Ocean Sciences at Cardiff University.

The SEP has been chosen as it has a more complex organisational structure than other coastal groups – Ballinger and Stojanovic (2010) describe the environmental management of the Severn as being "hampered by a complicated administrative and institutional setting with many local authorities bordering its shores" (2010:132) and both Welsh and English statutory bodies involved in its management. Reflecting this complexity, the Severn Estuary Partnership also provides the secretariat for a number of different groups, including a Joint Estuary Groups initiative, Joint Advisory Committee, the Partnership Management Group, Association of Relevant Authorities (involved in the Severn European Marine Site), the Coastal Group, responsible for Shoreline Management Plans and the Standing Conference of Severnside Local Authorities (established before the Partnership to collaborate

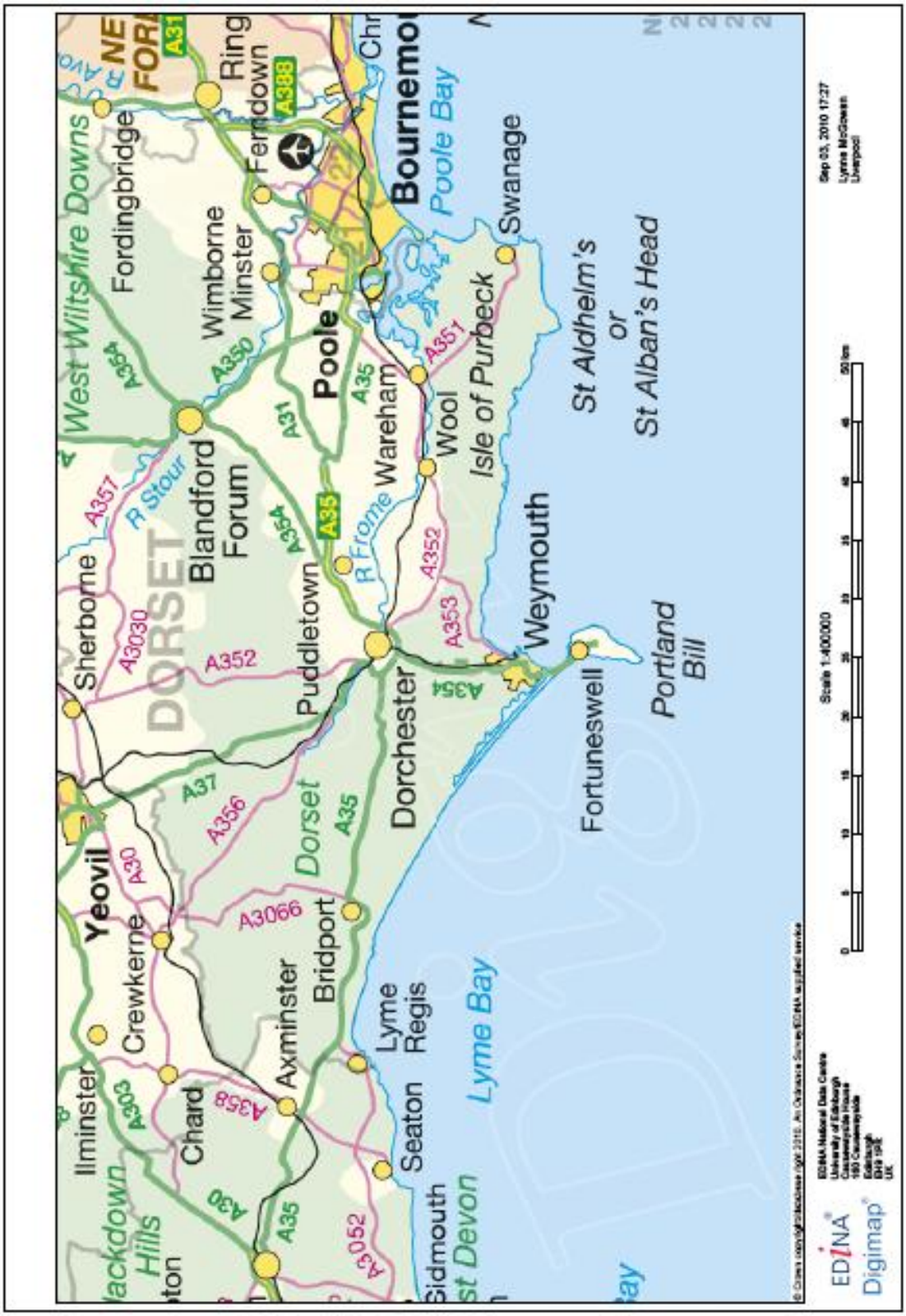
on the proposed Severn Barrage). Given this organizational complexity and the number of statutory and non-statutory activities carried out under one umbrella this case study will be useful in exploring how far ICZM can be integrated into the partnership's different areas of work.

5.3.4 Scotland: East Grampian Coastal Partnership

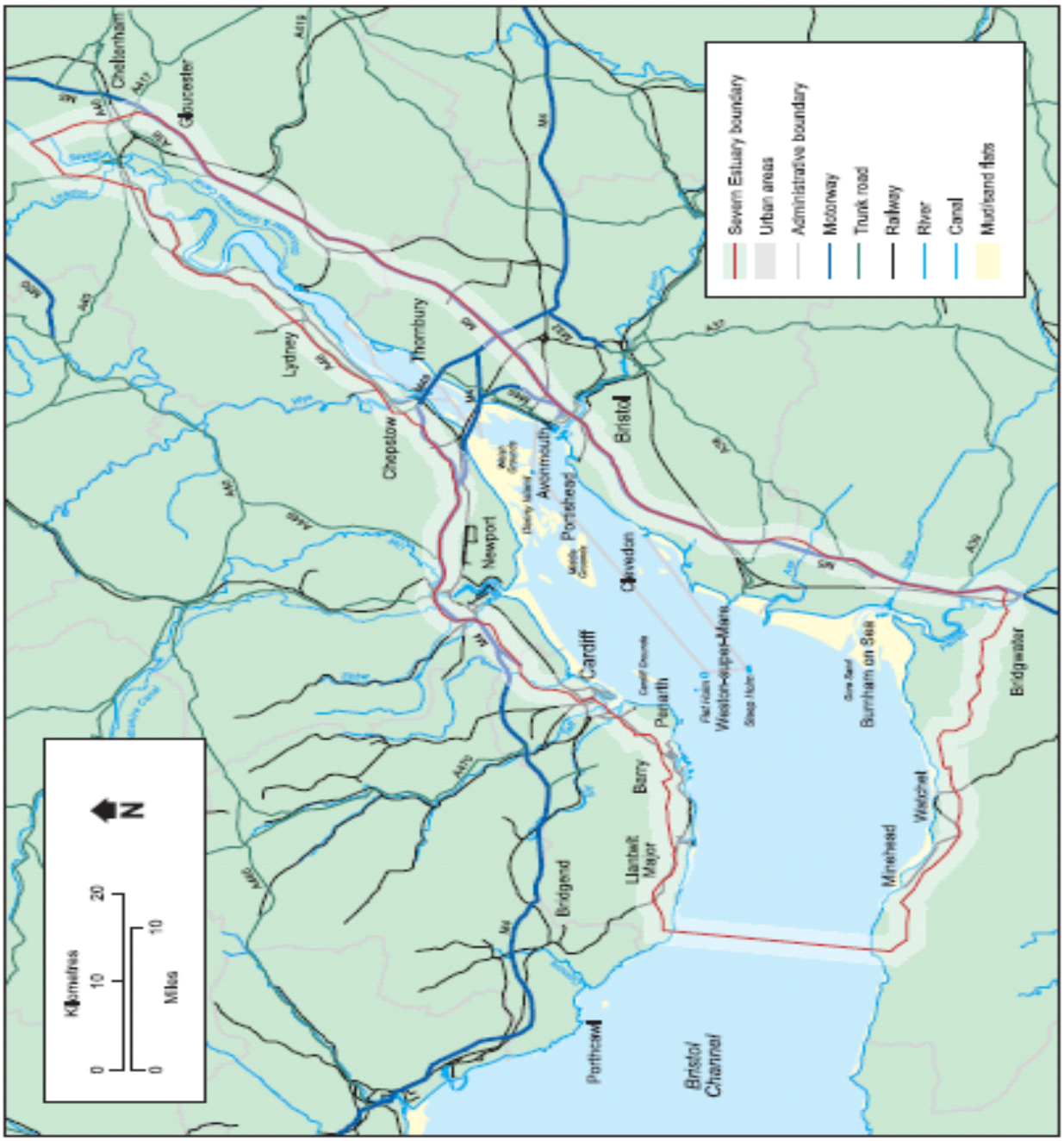
The EGCP encompasses a stretch of the east coast of Scotland from Fraserburgh in the north down to St Cyrus with Aberdeen as its main urban centre (see Map C). EGCP represents a newer coastal partnership, being formed in 2005 following a feasibility study by Aberdeenshire and Aberdeen City councils.

This Scottish case study is important given the Scottish Executive's decision to make ICZM a statutory duty in the Marine (Scotland) Act. In this case, therefore, it is anticipated that differences may be found in the social construction of the coastal problem, or the implementation phase of the policy cycle to explain why the statutory approach has been taken.

Map A: Dorset Coast Forum Area

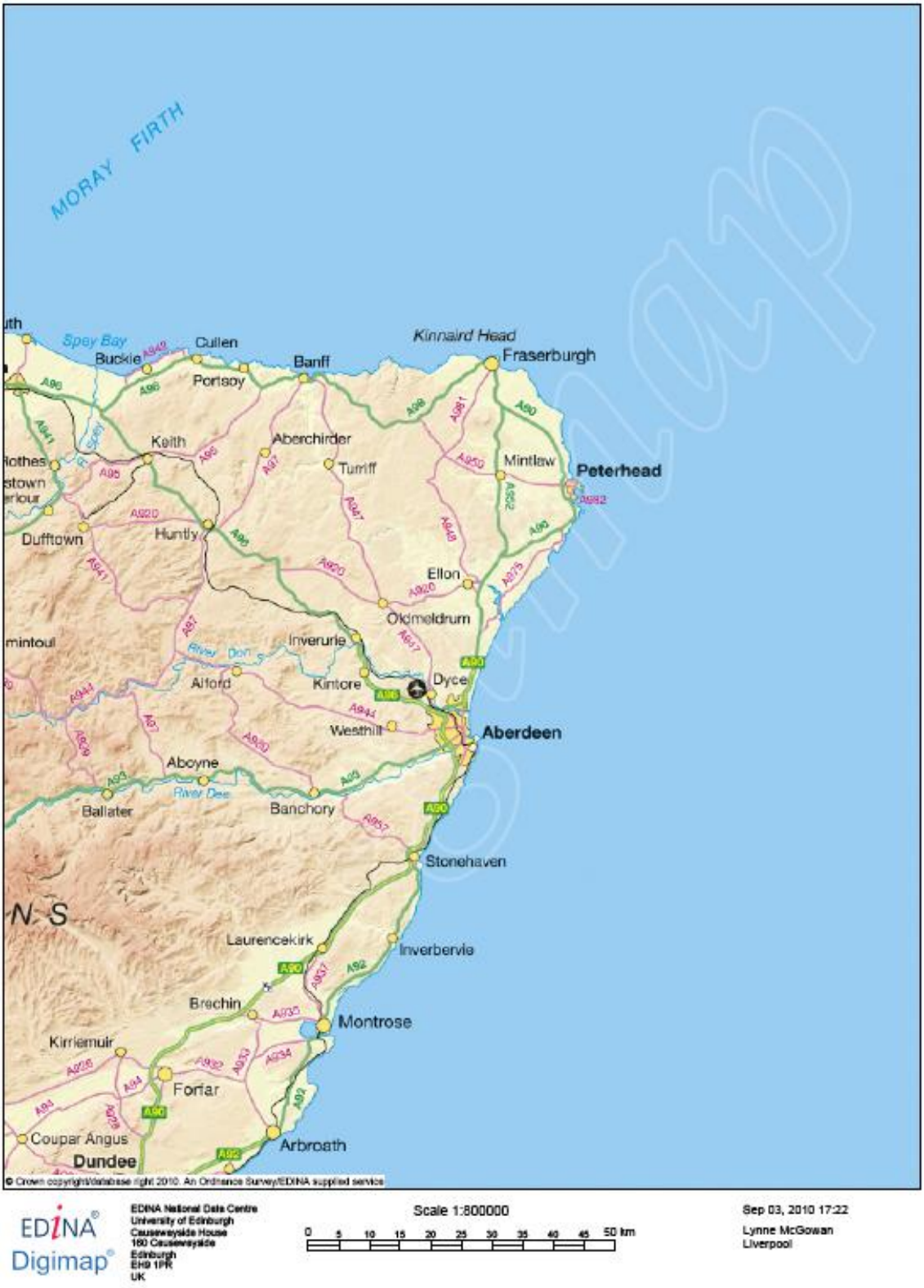


Map B: Severn Estuary Partnership Management Area



Source: Severn Estuary Partnership (2001)

Map C: East Grampian Coastal Partnership Management Area



5.3.5 Selection of a Marine Case Study

In the review of coastal initiatives only two examples relating to the marine environment were found – the JNCC Irish Sea Pilot and the ABPmer/Terence O'Rourke Marine Spatial Planning Pilot. Given that both cases were completed studies and as such the activity criteria used to select ICZM cases was superfluous, consideration was then given to the purpose of each project and the substantive content of the work undertaken. The JNCC study focused on developing a marine conservation strategy, whereas the MSP Pilot took a broader view of the management of all sea uses alongside protection of the marine environment, so it was felt that the MSP Pilot represented a form of planning more proximate to the principles of ICZM and therefore was selected as the marine case study.

The MSP Pilot was commissioned by DEFRA in 2004 and undertaken by a consortium consisting of ABP Marine Environmental Research Ltd (ABPmer), Terence O'Rourke Consultants, Risk and Policy Analysts, Geotek, Hartley Anderson and Coastal Management for Sustainability (the MSPP Consortium). Among the objectives of the study was the undertaking of a pilot study on the feasibility of introducing a marine spatial plan. The final report of the MSP Pilot was published in February 2006.

The MSP Pilot covered a study area of the Irish Sea including the coastal waters of Scotland, England, Northern Ireland and Wales, but excluding the territorial waters of the Isle of Man and the Republic of Ireland (see Map D). As the first initiative of its kind, the Pilot tested a number of aspects of marine plan production, such as data gathering and integration with other plans, with the outcomes being used to inform the future framework for MSP (now Marine Planning) nationally.

It should be noted that whilst the MSP Pilot Study was intended to feed ideas about the marine planning process into the Marine Bill and the subsequent operations of the Marine Management Organisation, the self-contained format of the Pilot makes it somewhat different to what might be expected of a full marine planning cycle, for example in that it lacks the overarching policy framework and binding legislation which will shape future marine plans, the time frame for developing and evaluating the Pilot is relatively short, and without a comparable suite of plans for adjoining marine areas questions of spatial integration cannot be comprehensively considered. However, as the only attempt at holistic marine planning to be carried out to date, this is the only logical choice for a marine case study with the caveats mentioned above kept in mind.

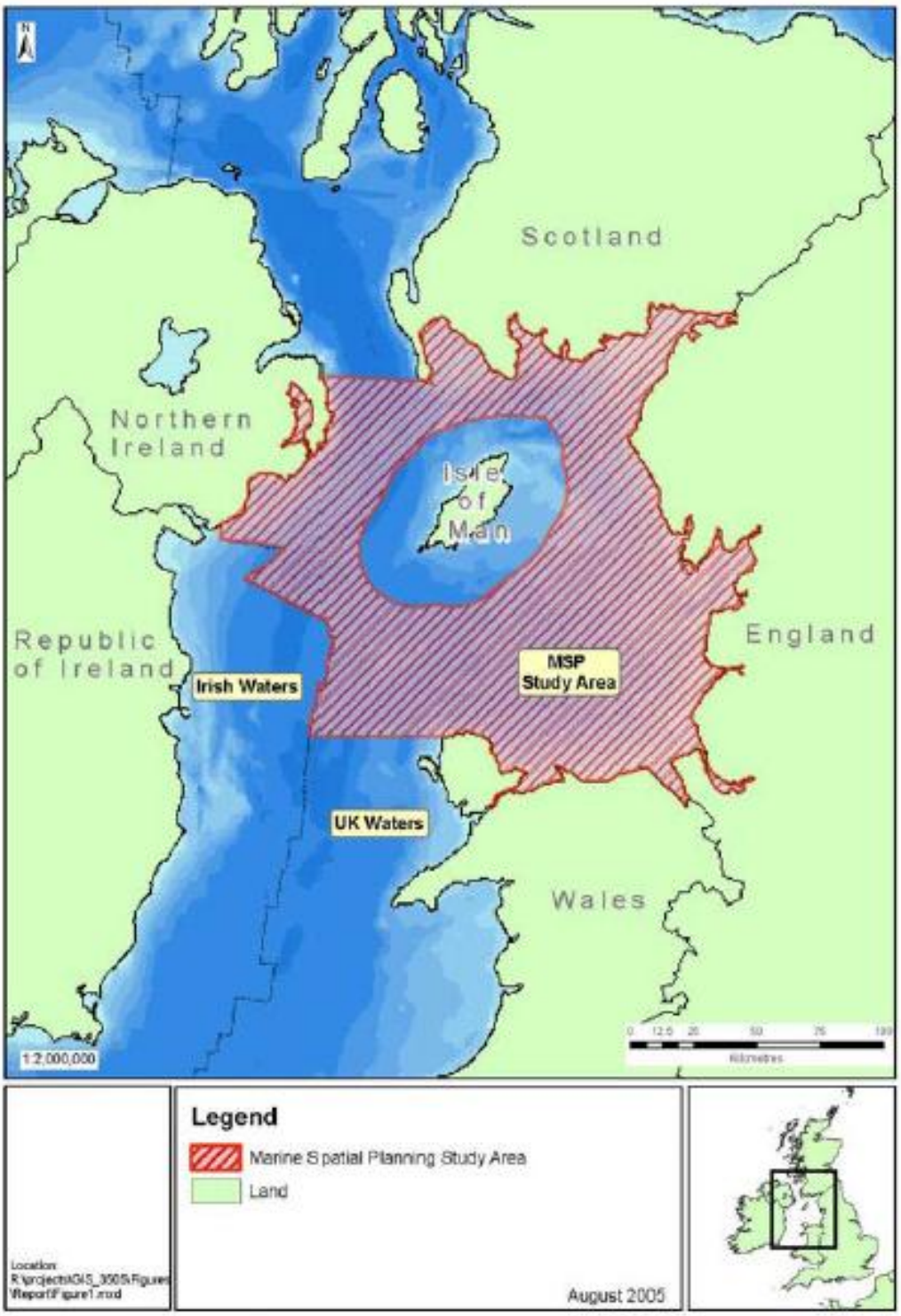
5.3.6 Selection of a River Basin Case Study

Due to the uniform way in which all RBPs have been produced by the Environment Agency, the selection of a RBM case study was somewhat more arbitrary than for the marine and ICZM cases – the only factor for differentiating between cases was by location. In this case the Dee River Basin Management Plan was selected.

Having begun work on RBM Plans in 2006, each river basin district has been subject to consultation on significant water management issues (2007) and draft RBMPs (2008-09). Full Plans for each district, with a lifespan of six years, including the plan for the Dee river basin district, were published in late 2009.

The Dee river basin covers parts of both England and Wales, in particular a section of Snowdonia National Park, North East Wales, Cheshire, Shropshire and the Wirral, thus raising the possibility of investigating processes of negotiation and decision making where a top-down approach to implementation may be in place, and where cross-border issues and conflicts may be apparent. The extent of the Dee River Basin is shown on Map E below.

Map D: Marine Spatial Planning Pilot Area



Source: MSPP Consortium (2006)

Map E: Extent of the Dee River Basin District

Source: Environment Agency (2010)

5.4 Data Collection

Having selected five case studies for closer examination, the next phase of empirical research took the form of a questionnaire and semi-structured interviews in each of the five case studies. Five key stakeholders were interviewed for each case study (i.e. 25 in total), with these individuals coming from the executive/management/advisory committees of each case study organisation. Five interviewees were selected in each case as it was this was judged to include a sufficient number of individuals from what were known to be relatively small groups of potential interviewees, and because with five case studies it was felt that the final number of interviews undertaken would yield an extensive dataset from which discussion could be drawn.

The executive/management/advisory groups were targeted because it was judged that the individuals would have been more closely involved in the organisation's discussions about plan making and so have a more detailed working knowledge of how their case study organisation functions and wider issues surrounding coastal management. Within each set of case study interviews, the partnership officer/project manager was included and used as a "gatekeeper" to obtain access to other potential interviewees and wider questionnaire respondents who may be members or participants in the activities of the case study organisation but outside the main management structure.

Given the uniqueness of each coastal partnership/initiative and the availability of potential interviewees, it was not possible to prescribe the exact makeup of each case study set, however the author sought to ensure that the interviewees represented a broad range of interests such as the academic and private sectors, local government, NGOs, residents and user groups.

5.4.1 Questionnaire Design

Following on from the proposal made in the literature review (Chapter Three) that the steps in Hannigan's social construction model can take on greater or lesser significance to reflect the more nuanced way in which each criterion can be met, a questionnaire was devised that reproduced the conditions deemed necessary for the social construction of a problem and subsequently for collaboration to occur. In this way the questionnaire attempted to measure both how respondents view the steps that have or have not featured in the implementation of their particular planning regime, and what factors may be more or less important in moving towards implementation.

The questionnaire formed the basis of the semi-structured interviews with key stakeholders and takes the format of a series of statements about events within the collaborative policy making cycle which the respondent may have experienced, with them then asked to indicate to what extent they agree with each statement along a scale from “strongly agree” to “strongly disagree”. This scale is used in order to produce a uniform set (or sets) of data related to each case study that would be difficult to obtain via a more open-ended line of questioning and the author’s interpretation of personalised responses.

The following tables (Tables 5a to 5e) demonstrate how the questionnaire statements and interview questions have been derived from the literature used to inform the collaborative policy making cycle. The questionnaire was organised in sections based on those in the collaborative policy making cycle, and the conditions or aspects of policy making which are central to each stage are listed, along with Gray’s propositions relating to inter-organisational collaboration. In some cases, the propositions, statements and questions produced are derived directly from the literature (e.g. Gray, Hannigan, Kingdon), and in other cases reflect the more generic aspects of policy making.

The wording of the questionnaire is largely generic and applicable to all three planning regimes under consideration, thus allowing for three versions of the questionnaire to be used that are identical in all respects apart from references to coast, marine, and catchments, or ICZM, MSP (as it was at the time) and RBMP. The statements used are positively phrased in order to provide grounding or a baseline against which respondents may formulate their opinions of what is happening or has happened for their particular sector, for example “A general consensus on the nature of the marine/coastal/river basin problem has been reached between actors”.

The questionnaire was administered in two ways. Firstly all key stakeholders were sent the questionnaire to complete prior to the interview in order to inform the interviewee about the focus of the interviews and also provide the author with a starting point for discussion against the various points covered. In addition it was helpful in providing an indication of particular issues that may be of interest in the interview, e.g. cases of extreme disagreement, and also where evidence might be helpful to support a claim about an experience or external pressures shaping the way their case study organisation has developed.

The second method of questionnaire completion was via an online version which was targeted at the broader constituency of the case study organisations and associated interested parties. In this instance “broader constituency” is defined as individuals paying a subscription or membership fee to the

organisation directly, individuals within an affiliated organisation, such as a private sector firm, public sector organisation or NGO, or those who have shown a degree of interest in the case study organisation by means of joining one of the case studies' mailing lists. Potential respondents were invited to complete the questionnaire by an email circulated from the case study organisation, or a link posted on the organisation's own website.

A full version of the questionnaire as it appeared online is shown in Appendix B, with additional spaces for respondents to fill in personal details (this was made optional for those wishing to remain anonymous) and additional comments relating to the questions they have been asked. The ordering of statements in the questionnaire is somewhat different to the way they have been set out in the tables – this was done to ensure a more natural flow of statements mirroring how events may take place in practice, and also to avoid the grouping of some statements that may appear to be relating to similar themes.

Table 5a: Problem Recognition

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**	**Online Questionnaire Statements [and *additional interview questions*]**
Scientific Evidence/Validation	Scientific evidence defines and orientates interpretations of an environmental condition The originators of scientific evidence are subject to perceptions of credibility in terms of process and political ideology	• There is clear scientific evidence demonstrating that coastal/marine/river basin resources are under critical pressure and that new approaches to tackling these problems are urgently needed. • This scientific evidence has received international endorsement at the highest level. *[If not, is it important to have such endorsement?]*
Popularisers	The implications of problems detected through scientific evidence must be communicated in a way that demonstrates the need to prevent potential negative consequences	• The case for action has been vigorously championed by key individuals/organisations. *[Who? If not, who should be taking the lead?]*
Media Attention/Dramatisation	Focusing events, crises and metaphors can highlight problems as distinct and requiring new solutions	• Media coverage of dramatic incidents such as oil spills/floods has helped to focus the attention of a wider audience on measures to tackle coastal/marine/catchment issues. *[Does this coverage provide sufficient long term interest?]*
Economic Incentives	Financial benefits or potential losses need to be demonstrated to motivate individuals and organisations to take action	• An explicit economic case for undertaking ICZM/MSP/RBMP has been articulated. *[Which organisation/publication has made a good case? If the case has not been made, why not?]*
Institutional Sponsors	The ongoing contestation of a claim requires organisations that are able to sustain interest in the problem and persuade others of the need for action	• Governmental and non-governmental coastal/marine/catchment stakeholders are playing an important role in continuing to highlight problems and potential solutions. *[Which groups?]*
Feedback from existing policy implementation (Kingdon)	Systematic monitoring and evaluation of existing programmes and policies may bring to light new problems or policy failures	• A disparity between the intended and actual outcomes of previous initiatives has contributed to recognition of the need for a new approach to coastal/marine/catchment issues. *[Are there other factors which have also contributed, e.g. general lack of coastal/marine/catchment policies?]*

Table 5b: Consensus Building

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**	**Online Questionnaire Statements [and *additional interview questions*]**
Interdependence	*The greater the degree of recognised interdependence among stakeholders, the greater the likelihood of initiating collaboration.*	• A general consensus on the nature of the coastal/marine/ catchment problem has been reached between stakeholders. *[If not, why not? What evidence is there for this?]* • There has been recognition that the competing jurisdictions and interests of government departments have prevented more integrated measures to tackle coastal/marine/catchment issues being proposed.
Identification of stakeholders	*The stakeholder set needs to reflect the complexity of the problem under consideration if collaboration is to occur.* *From an information standpoint, the more stakeholders who participate in problem solving, the more effective the collaboration will be.* *Efforts to convene all stakeholders simultaneously will likely be thwarted by changing dynamics of the domain. Therefore, inclusion of stakeholders should be viewed as a process of continual adaptation.*	• A full range of stakeholders have been included in the discussion of the coastal/ marine/catchment problem. *[Who has not been included that perhaps should be?]*
Legitimacy among stakeholders	*Shared perceptions of legitimacy are necessary to initiate problem-setting. Perceptions of legitimacy will be shaped by historical relations and the existing power distribution among stakeholders.* *Exclusion of legitimate stakeholders during problem setting will constrain subsequent implementation of solutions.*	(See identification of stakeholders, convenor)
Convenor	*Collaboration will be enhanced by convenors who possess legitimate authority and appreciative skills and who can serve as reticulists to rally other stakeholders to participate.*	*[What role has the chair played in bringing together stakeholders and overseeing negotiations between them?]*
Beliefs about outcomes	*Problem-setting efforts are enhanced when stakeholders expect that the benefits of collaborating will outweigh the costs and when prevailing norms support collaboration. If positive expectations are not present, incentives to induce participation will be necessary*	• Partnership working has been proposed as an important step towards achieving coastal/marine/catchment objectives. *[If so, by whom?]*

Table 5c: Exploring Options

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**	**Online Questionnaire Statements [and *additional interview questions*]**
Policy Design	Direction setting may be influenced by previous iterations of the policy cycle and attempts at problem solving. Collaboration should facilitate discussion and appraisal of stakeholders' previous experiences in a learning process that assists joint information searches and direction setting.	• There is evidence of experimentation by key players in relation to policy proposals for the coastal zone/marine/river basins. *[Examples?]* • There is evidence of experimentation by key players in relation to new institutional arrangements for coastal zone management/marine planning/catchment planning. *[Examples?]*
Coincidence of values	*Direction-setting is greatly facilitated by coincidence in values among stakeholders. Joint information search by the stakeholders contributes to the emergence of coincident values and mutually agreeable directions for the domain.*	• The core goals of ICZM/MSP/RBMP have been built through bargaining between interested parties. *[If so - has this been a long process? Have certain groups been absent or excluded from negotiations?]* • Joint working between actors at similar spatial/administrative scales is increasing. *[Examples?]*
Dispersion of power	*Collaboration will be enhanced when power is dispersed among several rather than among just a few stakeholders. An equal power distribution is not necessary and may prove undesirable since it can provoke stalemate and inaction. However, a sufficient distribution of power is necessary to insure that all stakeholders can influence direction-setting.*	• There is recognition that the dispersal of powers between stakeholders is uneven and that those powers may have to be redirected to achieve change. *[Evidence for this?]*

Table 5d: Decision Making

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**	**Online Questionnaire Statements [and *additional interview questions*]**
External mandates/political context	*Mandate alone will not generate conditions conducive to collaboration. However, coupled with other conditions (e.g. recognition of interdependence and balance of power), mandate can provide a structural framework for ongoing regulation of the domain.*	• There have been clear "windows of opportunity" or events enabling coastal/marine/catchment policies to be placed in the legislative programme. *[If yes, what were those opportunities?]* • There are now clear national public sector sponsors who are taking a lead in forwarding action on coastal/marine/catchment management/planning initiatives. *[Who are they? Or who should they be?]* • The emergence of a lead organisation or organisations has been legitimised by negotiation between stakeholders. • *[Is there evidence to suggest that the process has not been truly democratic?]*
Degree of ongoing interdependence	*Structuring will occur when stakeholders perceive that continued dependence upon each other is necessary to implement their desired directions for the domain.*	• There is now consensus and effective coordination between stakeholders at national and local levels.

Table 5e: Structuring and Implementation

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**	**Online Questionnaire Statements [and *additional interview questions*]**
Redistribution of power	*Effective structuring involves negotiation among all stakeholders about how to regulate the domain, including negotiations about the implementation of actions and the power distribution necessary to do so. One outcome of structuring is an agreed upon allocation of power within the domain.*	• There is a clear and consistent legal framework in place to aid the delivery of ICZM/MSP/RBMP. *[If not, what needs to be put in place?]* • Formal responsibilities for promoting coastal/marine/catchment issues, taking objectives forward and overseeing implementation have been allocated. *[Have responsibilities been allocated fairly/to the most appropriate agencies?]* • The plan making process for ICZM/MSP/RBMP is clearly set out.
Implementation Processes	For implementation to occur, there must be agreement upon the allocation of necessary resources (financial and human) for practical actions to be undertaken.	• Long term financial commitment is in place for the implementation of ICZM/MSP/RBMP.
Contextual Environment	*Successful implementation of collaborative agreements is contingent upon the stakeholders' collective ability to positively manage changes in their contextual environment. This involves monitoring changes and building relationships with actors outside the domain to insure that domain-level agreements are carried out.*	• Work on measures to address coastal/marine/catchment issues is becoming more commonplace.

5.4.2 Interviews

As has been stated in the previous section on questionnaire design and usage, interviewees were asked to complete the questionnaire and return it prior to the interview to enable their responses to form the basis for a semi-structured interview.

At the interview stage the author reviewed with the interviewee each of their responses to the statements in the questionnaire and asked them to elaborate on or justify their position, i.e. whether they agree, or disagree that an event has occurred (or in the case of a "neither" response may have partially occurred). In some cases, elaboration simply entailed asking the interviewee to provide evidence or examples, such as events that have focused attention on coastal problems or explaining the ways in which they have undertaken joint working with other organisations.

Acknowledging that other questionnaire responses may be based much more upon the interviewees' personal perceptions and opinions, some follow up interview questions (outlined in the previous section) were used to tease out the issues that brought the interviewee to a particular position.

The author recorded all interviews where consent was given (and where practicable, given that some interviews took place in loud, busy locations – in such circumstances notes were taken) and transcribed the interviews to produce an accurate record of the conversations that took place and also to provide evidence that could contribute to the overall analysis and evaluation of coastal management practices.

A full list of interviewees is included in Appendix C. A total of twenty six interviews were undertaken, five each for the MSP, Dorset, East Grampian and the Severn Estuary case studies, and six for the Dee River Basin (the sixth interview in this case was due to an additional questionnaire respondent coming forward at a late stage, indicating a willingness to be interviewed). Ten interviews were conducted over the telephone and the remainder were undertaken in person.

5.4.3 Evaluation of Findings

Having completed the second empirical phase of the research, it was recognised that the data must be assembled in some way so as to allow for a meaningful triangulation and interpretation of different viewpoints using documentary sources and evidence from interviews and questionnaires. The structure of the questionnaire assisted in this by providing both a simple, clear framework for disaggregating questionnaire and interview data on a topic by topic basis, relating to the stages of

the collaborative policy cycle, and also provided a simple quantitative indicator of the conditions present/absent in the work of each case study that could be used to corroborate the views given by interviewees.

To provide further assistance in assigning interview data to particular topics and themes, interview transcripts and notes were organised using N.Vivo computer software. This allows the coding of data into "nodes" or user-defined categorisations that may be independent or linked in a hierarchy ("trees").

An initial set of tree nodes were set up related directly to each of the questionnaire statements/interview questions, and these were incorporated into sets based on each section of the questionnaire or stage of the policy cycle. By reading through transcripts and assigning portions of text to nodes, further "free" (independent) nodes were added in an iterative process to accommodate additional useful information that was not already captured by the existing tree nodes. The additional free nodes included:

- References to other organisations, individuals, documents, projects
- Examples of "best practice"
- Issues of power held by stakeholders
- Sources of conflict (e.g. inconsistent policies, conflict between competing interests)
- Convenors or Chairs of case study organisations
- Miscellaneous comments

David and Sutton (2004) note that computer assisted qualitative data analysis software such as N.Vivo is unable to analyse data in a way that draws meaningful conclusions (2004:253); however it does provide a basis for analysis. In this instance assigning interview data to specific nodes allowed for a closer examination and comparison of practices within and across each of the case studies as it helps to visualise and establish relationships between different cases and individuals. In this sense N.Vivo provided a useful tool in organising data to review how collaboration occurs (or not) in current coastal planning practice, ultimately enabling the author to answer the questions set out in the earlier part of this chapter.

5.5 Case Study Protocol

In undertaking data collection for multiple case studies, it was necessary to ensure that the method of conducting case study research was carefully planned and consistent in terms of the preparation, procedures followed and analysis used across each case study. To this end Yin (2003) states that the use of a case study protocol is essential for guiding the case study, anticipating problems and ensuring that a complete set of data is obtained given the constraints involved in a research project (e.g. scheduling and accessing information).

Following on from the decision to adopt a case study approach to research and the initial selection of case studies, a research protocol was drawn up outlining the necessary actions that would enable data collection for each case study to be undertaken. These steps included:

- Background research/documentary review for case study areas
- Identification of key contacts/gatekeepers for each case study organisation
- Preparation and sending of introductory communication to gatekeepers
- Arrangement and undertaking of interviews with key stakeholders and dissemination of questionnaires
- Writing up interviews

Whilst it was important to plan ahead for the research involving multiple case studies, it was also recognised that the case study protocol could not be entirely prescriptive and that the research design should be flexible enough to accommodate any adjustments to the data collection strategy made as a result of initial findings or pilot studies.

5.6 Pilot Study

In order to test the proposed data collection strategy, it was decided that the first case study undertaken should be used as a pilot study. Yin (2003:79) describes the pilot case study as helpful to refine data collection plans with respect to both the content of the data and the procedures to be followed, and thus provides an opportunity at an early stage in the collection of empirical data for the researcher to reflect upon both the practical application of data collection methods and the usefulness of the data being collected.

In this particular instance, the Marine Spatial Planning case study was used as the pilot as this was the first case study in which the author was able to establish contact with the central figures leading the Irish Sea Pilot Project in a relatively short space of time. Because the MSP Pilot was a completed project, a key contact or gatekeeper for obtaining further access to participants in the study was sought by reference to project meeting minutes and the MSP Pilot Final Report (MSPP Consortium, 2006).

Due to the more disparate nature of the participants and lead researchers in the MSP Pilot, initial contact was made with three members of the Project Management Group – Stephen Hull of ABPmer, Jim Claydon (working at Terence O'Rourke Consultants at the time of the project) and Dr Bob Earll of Communications (formerly Coastal) Management for Sustainability (CMS). All three individuals were asked to complete the draft questionnaire prior to being interviewed.

Where respondents did not return their questionnaire before hand, this necessitated the author to discuss each point of the questionnaire in turn during the interview. Two of these interviews were carried out over the telephone, whilst one was face to face. During these discussions a snowball technique was used to locate and obtain access to further members of the original Project Management Group. Subsequently, a further two individuals responded to the request for interviews. Both interviews were carried out face to face. All of the interviews that were undertaken for the pilot were recorded with the interviewees' consent. This relieved the author of having to take notes during the conversation, which may have interrupted the flow of dialogue, and allowed for the interviews to be comprehensively transcribed at a later date.

5.6.1 Pilot Study Evaluation

Following this pilot case study, a number of criteria regarding data collection methods were considered and these are outlined below. As the pilot also formed part of the main empirical work an analysis and interpretation of the data collected cannot be given full consideration without reference to the other case studies to be undertaken and thus is only mentioned in this section briefly. A more detailed report will be contained within the following chapters of the thesis.

In evaluating how the proposed data collection strategy worked in practice, the following points were considered:

- Targeting and accessing key stakeholders
- Questionnaire deployment and response rates
- Interview location, structure, ethics and confidentiality
- Interview experiences and interviewee feedback
- Adjustments to the data collection strategy

The first stage in setting up case studies was to identify a gatekeeper or gatekeepers for each initiative or organisation in order to access a wider number of potential interviewees and questionnaire respondents. As the MSP Pilot concluded in 2006 and was undertaken by a consortium rather than a sole organisation it was anticipated that key individuals may be more difficult to reach as there was no longer a central point of contact and also because those involved may have moved on from their place of employment at the time of the project. In this case individuals who were already known to the author because of their work on the MSP pilot and ongoing work in marine policy were identified as potential gatekeepers.

All three gatekeepers were contacted by email and/or telephone and given sufficient explanation of the research were willing to assist. Initial conversations with these gatekeepers were also extremely useful in terms of locating other former members of the Project Management Group – both those that were easily contactable and those who had moved on from their previous work. Knowing which members of the Project Management Group retained an interest in MSP, the gatekeepers were asked to inform a more refined list of potential interviewees and questionnaire recipients.

Whilst the use of a number of gatekeepers in relation to one case study proved effective for this pilot, it was anticipated that the “live” nature of the other case studies and their organisation

through a central officer or manager would mean that it would only be necessary to contact one gatekeeper for future case studies.

With regards to questionnaire deployment and response rates, the lack of a central point of contact to feed the questionnaire out to a wider group of respondents again proved problematic and contact details had to be assembled from a variety of sources. The secondary target group (or intended recipients) of the questionnaire were the members of the MSP Stakeholder Advisory Group as listed in the Appendix of the Final Report (MSPP Consortium, 2006). An email list of approximately 50 individuals from the 217 listed was drawn up using web searches and making use of conference delegate lists. Given the time elapsed since the completion of the MSP pilot and the time needed to assemble a comprehensive list it was decided that this was a sufficient number of potential respondents to yield an acceptable level of responses.

These individuals were then sent an email outlining the purpose of the research and a link to the online version of the questionnaire. Twelve individuals in addition to the five pilot case study interviewees eventually completed the questionnaire, giving a response rate of 34% from the total number of Advisory Group members contacted. Whilst this may be considered relatively low, administering a questionnaire in this fashion can be susceptible to the same pitfalls as a postal questionnaire in terms of achieving a desired level of response. Once the questionnaire has been sent the author has limited control over forcing recipients to respond – factors such as time available, good will and the current interests of recipients come into play. On the other hand an online questionnaire can be deployed much more rapidly than a postal survey and people may be more willing to reply to something that has the convenience of being submitted electronically. In addition, the responses are automatically collated, making it easier for the author to spot emerging trends as the number of responses increases.

Of the initial interviews with gatekeepers, the telephone interviews were easier to arrange from a logistical perspective and involved smaller costs, but may have made it more difficult to build a rapport between interviewer and interviewee, and also for the interviewer to gauge responses, for example whether a pause was due to confusion and lack of understanding or simply the interviewee taking time to prepare a more considered, coherent response.

Overall it was found that face to face interviews were the preferred situation for the author as these interviews tended to last for a longer period of time and yield more in depth responses to questioning. It was also helpful in instances where the interviewee had not completed the questionnaire before hand to give them a copy to look through (and complete) during the interview.

For telephone interviews where the interviewee had not completed the questionnaire, both interviewer and interviewee were more conscious of time constraints, which may have led to more brief answers, and given that the repetitive style of the questionnaire did not lend itself particularly well to telephone surveys, some of the less contentious (but nevertheless important) issues may have been glossed over. However overall it was judged that telephone interviews were a valid means of data collection given that the key stakeholders interviewed in this way were able to provide useful information and opinions on the questions asked.

Looking more broadly at the use of the questionnaire to guide semi-structured interviews, this was extremely useful in terms of providing an overall narrative which could be explained at the start of meetings to indicate to the interviewee the line of questioning that was taken. Where questionnaire responses had been completed prior to the interview, this allowed the interviewer to focus the line of questioning on particular areas of strong agreement or disagreement for further elaboration. In cases where the interviewee had given neutral answers the author was also able to ascertain whether this was due to a lack of understanding of the question, insufficient experience of the subject/issue or the maintenance of an impartial position on the part of the interviewee.

In instances where the questionnaire had not been completed prior to interview, this necessitated a more rigid approach to questioning where all of the statements in the questionnaire were explored. Whilst this allowed the questionnaire to be completed during the interview and each statement to be discussed, this had to be balanced with the need to examine areas of contention or particular anecdotal offerings in more depth. Therefore it was preferred that interviewees should have completed, or at least read the questionnaire prior to interview to allow for more consideration of their responses, but it was also recognised that the work schedule of the interviewee or the time lag between arranging and actually participating in interviews may affect the likelihood of obtaining a questionnaire response before interviews took place.

5.6.2 Ethics

A final consideration in relation to the collection of questionnaire and interview data was confidentiality. It was the author's intention to record all interviews for the purpose of transcription and maintaining a complete and accurate record of the conversations that had taken place. Therefore at the start of each interview consent was sought from each participant for their interview to be recorded (both telephone and face to face interviews). Participants were also given reassurance that the information given would be anonymised in the reporting of findings in the thesis. In all cases for the pilot study the interviewees gave their consent, and the reassurance of non-disclosure allowed interviewees to be more frank with regards to naming individuals or organisations in illustrating their points.

Alongside this view the caveat applies that one may not truly know the extent to which an interviewee is giving their honest opinion, particularly in cases where interviewer and interviewee are meeting for the first time, or when the interviewee may be under pressure to uphold a "corporate" position. Therefore it must be assumed that the interpersonal skills of the interviewer are a direct influence on the willingness of interviewees to reveal particular opinions or facts.

5.6.3 Additional Feedback

The main purpose of the pilot case study was testing the practicalities and viability of the proposed data collection strategy, both from the perspective of the author and also utilising additional feedback such as comments from the pilot interviewees and other peers. This feedback has proved invaluable, not only in providing useful information that has added to the author's own knowledge of people, projects or events, but also in refining the author's interview technique and revising the questionnaire.

In using the questionnaire as a guide for interviewing, interviewees were able to comment on the wording of the questionnaire and their own understanding of what each of the statements meant. In cases where the interviewee felt that the statements were ambiguous or unclear, both the interviewee and the author were able to share their thoughts on what the statement was asking the respondent to consider, and where necessary the author was able to elucidate upon the issue to be explored in each particular case.

Of the comments received on the questionnaire, the main points that were problematic in terms of their interpretation were those relating to the statements on "experimentation" in relation to

institutional arrangements and policy proposals for the regimes under investigation. In the majority of pilot interviews the word “experiment” was treated with some caution as it was not widely used in planning and management terminology, however “precedent” and “best practice” featured in the responses of interviewees to the statements. Whilst these terms were potentially useful in making the questionnaire statements clearer, it was felt that their use could also result in leading respondents, as both phrases imply that current practice seeks to emulate something that has been tried before and thus does not necessarily encourage thinking about other, perhaps less successful initiatives the respondent may have experienced. With this in mind, it was decided not to change the wording of the questionnaire at this point.

One significant change was made to the questionnaire following the pilot study – a “don’t know” option was added to the potential responses for each statement. Whilst the author’s intent in using a multiple choice style of questioning was to force questionnaire recipients to take a position on each of the statements, it became apparent from interviews that in cases where the interviewees had no knowledge or experience of the situations alluded to then a “don’t know” response was more accurate than a neutral “neither agree nor disagree”. Taking a neutral position implies some knowledge of, but an impartiality or indifference to the situation in question and thus should be considered differently to a view which suggested inexperience.

5.6.4 Pilot Study Summary

As a means of confirming the validity of the proposed research method, the pilot study indicated that the case study approach was both viable and appropriate given the nature of the research objectives and the types of organisations/initiatives being investigated. Thus the case study protocol outlined earlier in this chapter served as the approach to data collection taken in the remaining four case studies.

What was highlighted the most in this test of the proposed data collection strategy was the potential difficulties in gaining access to individuals and the crucial role played by gatekeepers in providing a link to other people, utilising a “snowball” technique where necessary. The additional feedback from interviewees regarding the questionnaire helped to ensure that a more accurate or honest record of people’s opinions was also incorporated into the findings.

5.7 Conclusion

Having investigated the social construction of coastal, marine and catchment problems as a first phase of empirical data collection, this chapter has sought to outline how the conclusions and assumptions made about Hannigan's model can be tested. The methodology provided for this second phase of research also enables further investigation of how ICZM, MP and RBMP have been implemented, with reference to Gray's model of inter-organisational collaboration and the ways in which collaboration may be incorporated into policy making to improve integration between stakeholders and other policy sectors or domains. The next chapter will present data and analysis from the five case studies that have been chosen.

CHAPTER 6: Stakeholder Perspectives on the Nature of the "Coastal Problem"

6.1 Introduction

This and the following chapters outline and analyse the findings from the second phase of empirical work, that is, the case study research undertaken on the ICZM, MP and RBMP cases which were identified in the methodology chapter by a desktop survey of coastal organisations. This chapter in particular focuses on Objective Four, which is *to determine what factors are most important in practice for constructing claims about a coastal problem, and provide a reappraisal of the social construction model proposed by John Hannigan (1995).*

The chapter begins with a more detailed description of the case study organisations, relating to the structure and the activities they are engaged in, thus providing an understanding of the context in which each of the case studies operates.

Subsequently for the analysis, data from questionnaire responses and semi-structured interviews are compared against the propositions that comprise the collaborative policy making cycle developed at the end of the literature review in order to determine the extent to which those aspects or steps deemed to facilitate better collaborative processes are evident in the practices of each of the case studies. In discussing and analysing the findings, attempts will be made to answer the four key questions outlined at the start of the methodology chapter, namely:

1. How are the conditions outlined by Hannigan for the successful social construction of an environmental problem viewed in relation to coastal planning regimes?

2. Which preconditions are most significant in making the case for action for ICZM, MP and RBMP?

3. To what extent is the collaborative model proposed by Gray reflective of coastal planning practice?

4. As coastal planning regimes go through the policy cycle, what factors have the greatest influence on policy formulation and decision making?

The overall analysis is structured according to the five sections used to define the collaborative policy making cycle and provide the framework for data collection, i.e. problem recognition, consensus building, exploring options, decision making and finally structuring and implementation. Each of these sections is taken in turn for detailed examination. In this chapter, the stage of problem recognition is considered in relation to questions 1 and 2 as they focus on the social construction of an environmental problem and agenda setting. In the next chapter, questions 3 and 4 on collaboration and the delivery of ICZM are considered alongside the remaining policy cycle stages. Bringing all the findings together, objective 5 takes the findings from the previous questions and examines the implications these findings have for collaborative policy making in coastal planning regimes.

6.2 Introduction to Case Studies

6.2.1 Dorset Coast Forum - *Background*

As described in the methodology chapter, the DCF was established in 1995 and covers an area from Lyme Regis to Christchurch (see Map A). The establishment of the Forum followed the publication of two documents by Dorset County Council; *The Dorset Coast Today* and *The Future of the Dorset Coast* and a successful conference in 1994 which brought together a number of stakeholders to discuss the issues affecting the management of the Dorset Coast (Dorset Coast Forum, 2005). At the conference remarks by keynote speaker Professor Denys Brunsden on the geological and historical features of the Dorset Coast precipitated an interest in pursuing World Heritage Site status for the area, and after subsequent discussions on this matter the idea of a Coastal Forum took off (work on World Heritage Status continued separately and the Jurassic Coast Dorset and East Devon World Heritage Site was designated in 2001).

Following its inception in 1995, the DCF began work based on three main aims which are still in place today – these are to:

- Encourage co-operation and dialogue between all the different interests and users of the coast
- Gather and disseminate relevant information
- Review and contribute to existing policies at all levels; national, regional and local (Borough of Poole, 2009)

DCF - *Activities*

Dorset Coast Forum's current publicity leaflet states that since its establishment, DCF "has sought to meet the challenge of delivering Integrated Coastal Zone Management (ICZM)" (Borough of Poole, 2009). One of the first major activities undertaken by the DCF was the preparation of the Dorset Coast Strategy, a project which was funded by the European Union's Environment - LIFE Initiative and focused on the production of an integrated management strategy for the stretch of open coast to the south of Dorset County. As part of this work DCF published fifteen topic papers on aspects such as coastal defence, tourism, maritime industry, pollution and environmental quality and wildlife and the discussion generated by these topic papers fed into the production of the final strategy document which was published in 1999 and is reviewed every three years.

In the time the Forum has been operating it has hosted a number of other projects, including a Marine and Coast Atlas, marine archaeological record, personal watercraft and bathing safety projects, and most recently the C-Scope (Combining Sea and COastal Planning in Europe) project which will use the sailing events of the 2012 Olympic Games to provide a focal point for developing capacity in marine management alongside seascape and landscape mapping, a comprehensive seabed map and an offshore renewable energy capacity study.

DCF –*Organisational Structure*

The DCF is hosted and underwritten by Dorset County Council and has a steering group made up exclusively from funding partners such as Bournemouth Borough Council, Environment Agency, Dorset Wildlife Trust, Weymouth and Portland Borough Council and Dorset County Council itself. The Forum officers are considered to be employees of the Dorset Coast Forum, although their offices are based at Dorset County Council, and the Forum also has an independent Chair. The wider membership of the Forum consists of affiliated organisations based locally and nationally including for example Poole and Bournemouth Borough Councils, fishing associations, maritime industries, port authorities, tourism interests, AONB trusts and other conservation bodies, Government Office for the South West, DEFRA and the MMO. For specific project work, short term "Task and finish" groups are utilised. Currently there are over 220 organisations listed as members of the DCF from the public, private and voluntary sectors.

DCF organises two public meetings per year for members to discuss the work of the Forum and local, national and international coastal issues and produces a monthly e-newsletter informing members of the latest events, consultations and policy developments.

6.2.2 Severn Estuary Partnership -*Background*

The Severn Estuary Partnership (originally the Severn Estuary Strategy) was formed in 1995 by local authorities, the Environment Agency and the Countryside Agencies for England and Wales (now English Nature and the Countryside Council for Wales respectively) with the intention of encouraging a more coordinated approach between agencies and organisations and their management activities (SEP, 2001:3). The Severn Estuary Strategy, produced in 2001, cites the House of Commons Select Committee on the Environment report on Coastal Zone Protection and Planning (1992), Planning Policy Guidance Note 20 (PPG20) "Coastal Planning" and its Welsh equivalent Planning Guidance (Wales) Technical Advice Note (TAN) 14 on the lack of coordinated decision making, the need for an integrated approach to coastal planning and management and the need for voluntary Estuary Management Plans. It is noted that given the Estuary's location between two different systems of governance (in Wales and the South West of England) this "results in parallel agencies and organisations and, because of the different systems under which these operate, sometimes leads to different management practices" (SEP, 2001:4). Therefore, the Severn Estuary Strategy's overall aim is to bring together all those involved in the development, management and use of the Estuary within a framework which encourages the integration of their interests and responsibilities to achieve common objectives (Ibid, p3).

SEP - *Activities*

During its existence the SEP has undertaken a wide range of activities including the Severn Wonders festival to promote the estuary, provided consultation responses to policies and proposals affecting the Severn, and been involved in research for European-funded projects on coastal management such as Corepoint and CoastAtlantic. Between 2005-2007 SEP provided the Secretariat for Les Esturiales, a European partnership of municipal and regional Authorities with responsibility for the sustainable management of several European Estuaries, focused on promoting a sustainable and holistic approach to their future management and development through co-operative activities, including exchanges of experience, lobbying and technical projects.

The Severn Estuary is a particularly dynamic and sensitive environment, with numerous wildlife and conservation designations such as a Ramsar site, SPAs, SACs, SSSIs and a European Marine Site (see Map B). With one of the largest tidal ranges in the world, this has led to proposals for a tidal energy scheme to harness the potential for renewable energy generation, and a feasibility study on five tidal energy options for the Severn has been carried out by a cross-governmental team lead by the

Department of Energy and Climate Change (DECC). As the Severn Estuary Partnership represents a wide variety of interests it is unable to provide any kind of position statement on the Partnership's own preferred option for a renewable energy scheme, however it can provide information to members and facilitate discussion through its newsletters, annual Forum and other meetings.

SEP - *Organisational Structure*

The Severn Estuary Partnership represents a more complex organisational structure than the other ICZM case studies, reflecting the numerous issues and activities affecting the Estuary. The Severn Estuary Partnership is hosted by the University of Cardiff and provides the secretariat for a number of groups, including:

- the Association of Severn Relevant Authorities (ASERA) – bringing together authorities with statutory duties for conservation on the Severn (for example in relation to SACs, SPAs and the European Marine Site) to ensure duties are discharged in the most efficient way.
- the Severn Estuary Coastal Group, operating since 1993 to produce Shoreline Management Plans for the Bristol Channel, and
- the Standing Conference of Severnside Local Authorities (SCOSLA)

A Joint Advisory Committee of decision-makers from local authorities, statutory bodies and other key interest groups oversee the direction of the SEP and provide advice on estuary-wide issues, and a management group of representatives of funding bodies guide the work of SEP staff. The JAC and Management Group have separate chairs – that for the JAC being a political representative (MP or Councillor), and the Management Group chair being an officer from a local authority or statutory body.

The Partnership has held an annual Forum since 2006 for members and the wider public to meet and discuss the work of the Partnership and current issues affecting the Severn.

At the time of undertaking case study interviews, the SEP was going through a period of change, having recently appointed a new Partnership Manager, Jonathan Mullard. One of the main duties undertaken by the Partnership Manager is to review the SEP's operating procedures, a process which has involved developing a new set of strategic principles to guide the Partnership's work, drafting a new business plan and communications strategy. Having already consulted the Joint Advisory Committee on what they thought the main issues were for the Severn, a draft business plan

was to be put to the Joint Advisory Committee shortly after case study interviews had been completed.

6.2.3 East Grampian Coastal Partnership - *Background*

The East Grampian Coastal Partnership was formed in 2005, having been proposed by Aberdeen City and Aberdeenshire Councils. Besides the numerous local issues motivating the creation of the EGCP, such as marine litter, recognition that this was the one area of Scotland's east coast that did not already have some kind of coastal management group or partnership provided the impetus for the formation of the Partnership. Prior to this a feasibility study on the establishment of a coastal partnership was undertaken with the supervision of a steering committee and the assistance of local university students and published in 2004. Subsequently money to fund the partnership for two years was secured in November 2004[7].

EGCP - *Activities*

The aim of EGCP is "to assist in the delivery of Integrated Coastal Zone Management between Fraserburgh and the mouth of the River North Esk on the East coast of Scotland" (see Map C) through a variety of initatives such as promoting sustainable development to the local communities, protecting the natural and cultural heritage of the coast, stakeholder engagement in consultations and networking, initiating research and practical projects in conjunction with other organisations and to influence national coastal management policies.

Some specific examples of the work done by EGCP include setting up a successful dolphin survey in conjunction with a local ferry company operating services to the Northern Isles, an "Adopt a Beach" scheme to tackle marine litter through talks, volunteer beach cleans and the provision of cleaning equipment, the issuing of Community Grants to other local organisations in order to help them with activities that preserve, enhance, promote or increase access to the natural environment. EGCP has also taken a role in the creation and implementation of the North East Scotland Marine Local Biodiversity Action Plan, part of the UK and devolved administration's commitments to the UN Convention on Biological Diversity.

Besides its coastal work, EGCP is also a founding member of the North East Scotland Area Advisory Group, which assists the Scottish Environment Protection Agency in producing a Scottish river basin

[7] see egcp.org.uk/partnership/partnershipbackground.php

management plan as required under Water Framework Directive 2000/60/EC by providing locally focused input on plan preparation, priorities, setting objectives and developing an Area Management Plan.

EGCP - Organisational Structure

The Partnership is hosted by the Macaulay Institute (an interdisciplinary research centre focusing on sustainable land use and natural resources) and comprises of an independent chair, an executive group made up from representatives of the organisations which fund EGCP such as Scottish Natural Heritage, Aberdeen City and Aberdeenshire Councils, and the Macaulay Institute, who oversee the day to day management of the Partnership. The Partnership also has a management group of organisations with an interest in the East Grampian coast such as SNH, the Scottish Coastal Forum and Aberdeen Harbour. The wider membership of EGCP is open to affiliated groups, organisations and individuals. An AGM and seminar is held to discuss the work of the Partnership and wider issues.

At the time of undertaking case study research, the EGCP Business Plan 2007-2010 indicated that EGCP was investigating a possible move to formal company structure with a Board of Directors replacing the management group and a paid chairperson (EGCP, 2007:2), however this change to the organisation has not taken place.

6.2.4 The Marine Spatial Planning Pilot - *Background*

In the *Safeguarding Our Seas* document, published in 2002, DEFRA announced that it would explore the role of spatial planning for the marine environment (2002:3) and also noted the need to increase cooperation in spatial planning processes for the marine environment in order to integrate and manage conflicting sea use pressures (Ibid, p8). Following the announcement in 2004 of DEFRA's plans for a new Marine Bill, a Marine Spatial Planning Pilot was commissioned by DEFRA to research options for developing, implementing and managing marine spatial planning in the UK. This work was undertaken by the MSPP Consortium which included ABPmer, Terence O'Rourke, Risk and Policy Analysts, Geotek, Hartley Anderson and Coastal (now Communications) Management for Sustainability.

The MSP Pilot - *Activities*

The pilot study had two main elements, firstly to review existing spatial planning practices and how they might be applied to the UK's marine and coastal waters, and secondly to undertake a pilot

study to assess the feasibility of developing and applying a marine spatial plan for UK waters (MSPP Consortium, 2006).

The programme of work for the pilot comprised of a number of elements:

- a literature review,
- the development of a suggested process for marine spatial planning and management,
- a pilot project that simulated the development of a marine spatial plan for the Irish Sea (see Map D),
- an exploration of the relationship between regional marine spatial plans and the plethora [of] existing marine plans,
- preparation of an initial Regulatory Impact Assessment (RIA), and
- preparation of a final report including conclusions and recommendations (MSPP Consortium, 2006:ii)

The MSP Pilot - *Organisational Structure*

As a unique project rather than an organisation with long term objectives, the management of the project was overseen by a Project Management Group chaired by DEFRA and consisting of approximately twenty eight individuals[8] representing government departments, the devolved administrations and the consultancies involved in the delivering the project. In order to facilitate some form of stakeholder engagement, a wider Stakeholder Advisory Group consisting of 217 individuals from the government departments, local authorities, the private sector including harbour companies and the energy sector, academia, NGOs, coastal partnerships, fisheries, conservation groups, recreational users and others (MSPP Consortium, 2006:52) were invited to participate in a number of meetings, workshops and comment on consultation documents through the MSP Consortium website.

6.2.5 The Dee River Basin Management Plan - *Background*

In anticipation of transposing Water Framework Directive2000/60/EC into UK law, the Dee River Basin and indeed all other river basins in England and Wales have a shared background, with their borders being decided upon by the Environment Agency. The Dee RBD covers an area of 2,251 Km^2 which includes north east Wales, parts of Cheshire, Shropshire and the Wirral (see Map E) and the

[8] Having been unable to find a definitive list of members for the Project Management Group, this figure has been obtained by reference to the minutes of Management Group meetings.

Dee Estuary, containing mud flats and salt marshes, is both an SSSI and Ramsar site. In order to prepare river basin management plans for each district, the EA has undertaken a process of monitoring and classification for water bodies within each district according to their chemical and ecological characteristics, and also spatial dimensions such as latitude, longitude and tidal range have been used to define estuarine and coastal waters. Classification of water bodies into artificial and heavily modified, groundwater, surface water, lakes, rivers, estuarine and coastal waters and protected areas, reported in the draft RBMPs for each district, has then facilitated the identification of pressures and risks to water bodies (significant water management issues).

The Dee RBMP - *Activities*

The production of RBMPs has followed a strict timetable throughout their preparation. In 2006 the EA produced the "Working Together" consultation documents for each RBD, outlining how the production of RBMPs may take place and how stakeholders can get involved. At the end of the consultation period in June 2007, responses to the Working Together documents were published, highlighting who had responded, their concerns and how these would be addressed by the EA in RBMP production, for example in the case of the Dee there were a total of seventeen respondents, ten of whom made responses that were copied to other RBDs and seven that were specific to the Dee (Environment Agency, 2007). These responses then enabled the EA to produce an amended list of plans and strategies that should be taken into consideration when producing the Dee RBMP, and also helped to compile a more comprehensive list of stakeholder groups that may provide channels for further communication of the WFD.

A second round of consultation on Significant Water Management Issues for each RBD took place between July 2006 and January 2008.This highlighted specific problems for the Dee RBD, which were grouped into:

- alien species, such as North American Signal Crayfish and Japanese Knotweed;
- commercial fisheries – illegal fishing and removal of undersized cockles
- diffuse pollution - rural (nitrates, metals, pesticides, phosphates and sediments)
- diffuse pollution – urban and transport (nitrates, metals, pesticides, phosphates, sediments, run-off from industrial estates and building sites)
- point source pollution (organic pollution, pesticides, phosphorus and sediments).

The third stage of consultation followed the publication of draft RMBPs for each district, lasting from December 2008 to June 2009. Finally, the full River Basin Management Plan for the Dee, alongside

RBMPs for all other RBDs, was published in December 2009. The plan contains a summary of the Programme of Measures that will be used to meet the objectives of the WFD, outlining which stakeholders will have responsibility for undertaking each of the measures.

The Dee RBMP - *Organisation*

For each RBD a Liaison Panel has been set up to assist in engaging wider stakeholders. *Water for Life and Livelihoods* states that Liaison Panels should consist of up to 15 partners, including bodies with statutory powers and others that will put measures into action (Environment Agency 2006a:26). As a cross-border RBD, the Dee Panel consists of a slightly larger number of members, reflecting the need for representatives and their counterparts on both sides of the English-Welsh border to be involved.

The Liaison Panel has several roles:

- discussing and negotiating between deliverers and regulators on the Programme of Measures for RBMPs,
- scrutinising the plan-making process,
- ensuring progress in the implementation of the WFD, and
- providing a link between their sector, feeding back information to peers and representing their sector's interests to other members of the Panel and the EA. (DEFRA/WAG, 2005, in Environment Agency, 2006a)

The Dee Liaison Panel currently meets publicly twice a year.

6.3 Findings – Questionnaire Reporting and Interviews

Having contextualised the case studies, attention now turns to the description and analysis of case study findings. This will start with a report on the results of administering the questionnaire as this gives some insight into the range of participants who have contributed to the empirical data used, and the results of undertaking the questionnaire also provide the foundations for data analysis in which the broad picture obtained from the questionnaire results can be triangulated with more specific, qualitative interview data for comparison and evaluation. The total number of questionnaires completed is shown in Table 6a below.

Table 6a: Summary of Questionnaire Completions by Planning Regime

	Total completions	Number completed by interview participants	Number completed by non-interviewees
ICZM	40	15	25
MSP	17	5	12
RBMP	6	6	0

Source: Author

The differences in response rates for each of the case studies can be accounted for by two main reasons. Firstly, the potential number of respondents for each case study was dictated by the size of the case study organisation and the number of interviewees coming from each regime. Therefore with three ICZM case studies and fifteen interviewees compared to five each for MP and RBMP, the response rate was already somewhat skewed. In terms of respondents from the wider membership of each case study organisation, again, for the ICZM case studies, a larger number of respondents may be expected, with each organisation having a membership in excess of one hundred individuals or representatives of organisations. In the MP case study, only one fifth of the original Stakeholder Advisory Group could be contacted. In the River Basin Management case study, the Dee Liaison Panel consisted of only 16 members, therefore a small number of responses was inevitable, and the actual figure of 6 out of 16 represents a not insignificant proportion (38%) of the Panel.

The second factor accounting for the response rates may be the way in which the questionnaire was administered, as this varied across the case studies. For the ICZM questionnaire, participants (other than interviewees) were either invited to respond through an email from the partnership officer, or a link was placed on the web pages of the organisation. Whilst the anonymous nature of the

questionnaire prevents a comprehensive breakdown of the numbers of ICZM respondents by affiliation to a case study organisation, however the author was able to gauge an approximate weighting based on the time period over which responses were collected, and knowing approximately when the questionnaire was released into the public domain by each organisation.

In this instance, the majority of (non-interviewee) ICZM questionnaire responses are thought to have come from the membership of the Dorset Coast Forum. This was also the only ICZM case study in which the questionnaire was administered through an email invitation, and thus the more direct communication and implicit endorsement of the research through email distribution by the partnership officer has been influential in eliciting a higher response rate.

Given the variability in response rate across the three questionnaires, and the relatively low number of respondents, it was considered that it would not be representative to base comparisons and analysis on the raw numbers collated in response to each of the statements. Therefore, in the following sections, questionnaire responses are reported as percentages showing the proportion of people in each regime who selected “Agree strongly”, “Agree somewhat” or other options for each statement. Presenting data in percentage form also allows for a more convenient comparison across the three questionnaires as this standardised format eliminates the problem of differing sample sizes.

It is important to note the timing of this phase of case study work, as historical and current policy developments can be a major influence on the responses given to particular questions about the ways in which coastal planning regimes are being implemented. Case study interviews were carried out between May and December 2009, with the Marine Planning case study completed first (May – June), followed by the Dee River Basin Management Plan (May – August), Dorset Coast Forum (August to October), Severn Estuary Partnership (October – November) and finally East Grampian Coastal Partnership (November – December).

At the beginning of this period the Marine Bill was still going through Parliament on its way to becoming the Marine and Coastal Access Act, only receiving Royal Assent on 12th November 2009 (the Marine (Scotland) Act followed in March 2010). This fact was of particular relevance to both the marine planning case study and the ICZM cases, as there was a great deal of uncertainty surrounding the final contents of the Marine Acts and subsequent enabling legislation that would both structure the implementation of marine planning and outline how ICZM would be incorporated into marine planning activities.

Similarly for River Basin Management Plans, the interview period covered a time when consultations on Draft RBMPs were drawing to a close and the final Plans were being drawn up, and thus interviewees may have moved from an initial position at the time of interview to a different position by the time interviews for all the case studies had been completed. However, the design of the research limited the author to capturing a set of views at a particular point in time in the implementation of each regime. A full list of interviewees is included in *Appendix C*, and a table of questionnaire responses is included in *Appendix D*.

The following section now describes the research findings for the problem recognition stage of collaborative policy making.

6.4 Analysis – Problem Recognition

In the problem recognition stage, as described by the literature review, problems may become known to stakeholders through a process of social construction, whereby the creation of knowledge about a condition and its definition as a problem is highly dependent upon the historical, social and cultural norms of the society within which claims-makers exist. Under John Hannigan's (1995) model for the successful social construction of an environmental problem, six essential prerequisites are outlined for making claims. These are:

- Scientific authority for and validation of claims,
- Existence of popularisers who can bridge environmentalism and science,
- Media attention in which the problem is framed as novel and important,
- Dramatisation of the problem in symbolic and visual terms,
- Economic incentives for taking positive action, and
- Recruitment of an institutional sponsor who can ensure both legitimacy and continuity

Furthermore, Kingdon (1984, 2003) observes that feedback from previous iterations of the policy cycle related to the implementation and monitoring of policies or programmes may contribute to new claims about the existence of a problem (and proposed solutions), which in turn initiates a new phase of agenda setting. However, it was found in the literature review that Hannigan's model considers that all six prerequisites are necessary and given equal weighting in the impact they have upon the social construction of a problem, and that the extent to which each prerequisite may be apparent in the rhetoric of claims makers may vary considerably, for example scientific evidence for

a problem may be minimal, or media exposure may be limited to a particular audience. This raises the possibility for the six prerequisites to be seen not as a set of discrete criteria, but rather a more nuanced continuum of weak to strong presence. Similarly, these prerequisites may feature more or less prominently in claims making, so for example the economic case for action may be emphasised more than any other prerequisite in trying to move the problem up the political agenda. In order to test these hypotheses, the first part of the questionnaire and interview questions were used to determine how respondents viewed Hannigan's prerequisites in relation to their own particular ICZM, MSP or RBMP work.

A table of questionnaire responses relating to each of the propositions on problem recognition is shown on the next page. In addition, for each proposition a summary graph of questionnaire responses related to each of the propositions is shown, followed by a description of the additional information gathered from interviews also relating to the propositions. The final section of this chapter will draw together all the findings related to problem recognition to discuss how this relates to problem recognition in each of the planning regimes studied and the implications this has for policy development, and also examines how, in the light of these findings, Hannigan's model may be further developed.

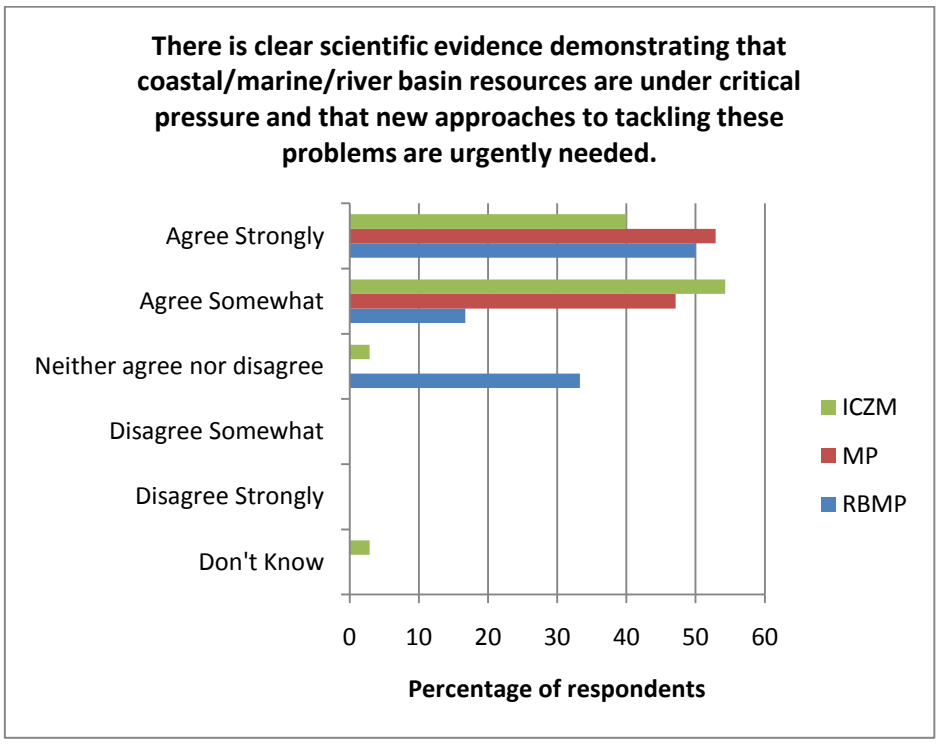
Table 6b: Questionnaire Responses for Problem Recognition

There is clear scientific evidence demonstrating that coastal/marine/river basin resources are under critical pressure and that new approaches to tackling these problems are urgently needed.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	14	19	1	0	0	1	5
MSP	9	8	0	0	0	0	0
RBMP	3	1	2	0	0	0	0
This scientific evidence has received international endorsement at the highest level.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	7	18	6	1	0	3	5
MSP	6	8	0	3	0	0	0
RBMP	2	1	2	0	0	1	0
The case for action has been vigorously championed by key individuals/organisations.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	12	16	3	1	1	2	5
MSP	9	5	1	1	1	0	0
RBMP	1	3	1	1	0	0	0
Media coverage of dramatic incidents such as oil spills/floods has helped to focus the attention of a wider audience on measures to tackle coastal/marine/catchment issues.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	2	19	9	4	1	0	5
MSP	4	8	1	3	0	1	0
RBMP	1	4	1	0	0	0	0
An explicit economic case for undertaking ICZM/MSP/RBMP has been articulated.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	2	8	4	13	6	2	5
MSP	2	8	3	0	3	1	0
RBMP	0	2	2	1	1	0	0
A disparity between the intended and actual outcomes of previous initiatives has contributed to recognition of the need for a new approach to coastal/marine/catchment issues.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	10	13	7	1	1	3	5
MSP	1	8	6	2	0	0	0
RBMP	1	2	3	0	0	0	0
Governmental and non-governmental coastal/marine/catchment stakeholders are playing an important role in continuing to highlight problems and potential solutions.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	9	24	0	0	2	0	5
MSP	7	10	0	0	0	0	0
RBMP	3	2	1	0	0	0	0

Source: Author

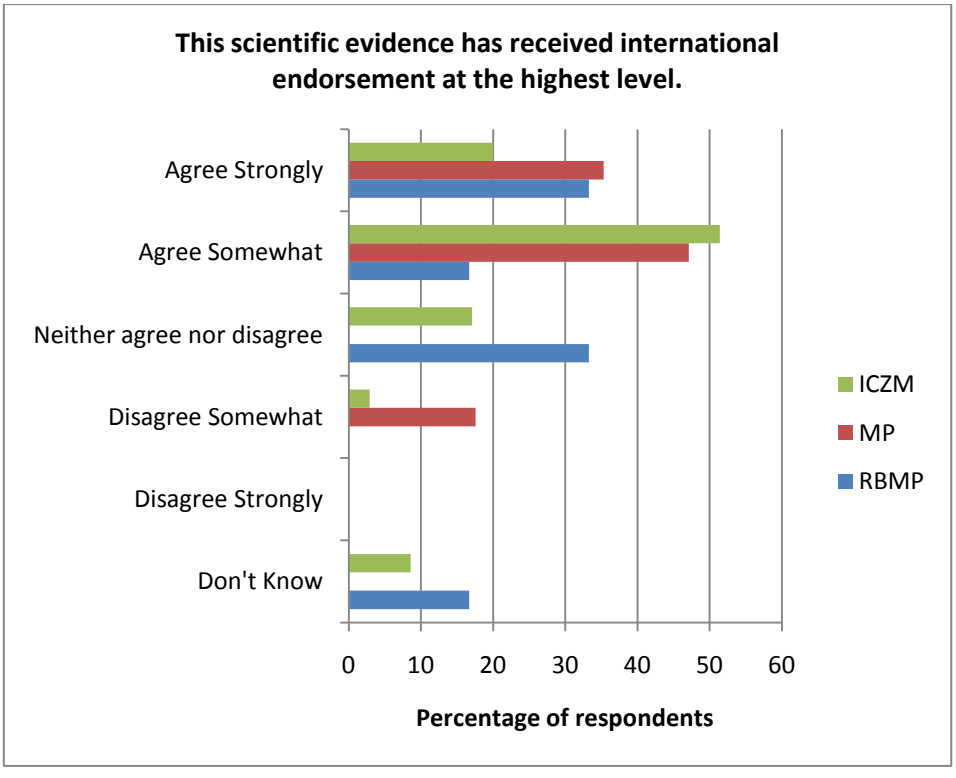
6.4.1 Existence and endorsement of scientific evidence

Figure 6.1: Questionnaire Response – Scientific Evidence



Source: Author

Figure 6.2: Questionnaire Response – Endorsement of Evidence



Source: Author

In the modern political context of evidence based policy making, the need for scientific studies of resource use and its impacts are crucial to evaluating the current situation and anticipating future trends or policy directions. The questionnaire responses to the first statement regarding the existence of scientific evidence demonstrating pressures on coastal/marine/catchment resources (shown in Figure 6.1) therefore reflect this, with the majority of respondents across ICZM and MP agreeing strongly or somewhat that such pressures have been demonstrated.

For example, at a general level, there was a great awareness of research and reports in relation to the proposals for the Marine Bill, such as the Charting Progress report by DEFRA (DEFRA, 2005b). However, it was felt by some respondents that the number of reports can be overwhelming and thus difficult to interpret, for example one respondent from a coastal partnership stated that:

> *"There's all sorts of consultations and loads of different levels of policy making and reporting, whether it be the WFD or DEFRA consultations which come out one a week at the moment... There's a lot of information gathering going on, but combining that into anything meaningful is not happening, or it doesn't seem that it is possible to find a simple digest"*

Similarly, another interviewee described people being "swamped" with consultation and report overload, citing the need for documents to be more succinct and simple.

The volume of scientific evidence and the need for information to be distilled into simpler, clearer messages is an issue that may be further addressed by the popularisers described by Hannigan, or those stories and events which capture public attention. For MP, the fact that there has not yet been an opportunity beyond the Pilot for plan-makers to gather information limits to some extent further comment on the availability of evidence in this particular case study, although there is increasing awareness of climate change, it's likely impacts and the need for mitigation, and potential damage to ecosystem goods and services through overfishing and pollution. These particular topics are emerging as the main areas of science or research focusing thoughts on the need for marine planning, with one interviewee stating:

> *"there are many things where people are saying there's danger of local extinction, as a result of human pressure, there are things that climate change is going to lead to, geographic shifts, and I think more broadly than when we talk about marine resources we can talk about the supply of ecosystem goods and services and human use of those, and there's lots of evidence about conflicts between human use activities which may be limiting the value of ecosystem goods and services"*.

For those working within coastal partnerships, interpretation of data *"is difficult because talking about a lot of different branches of science, coming from different sources"*, and where evidence is compartmentalised,

> *"getting people to agree to a common vision or a common set of priorities or to agree which indicators might be used to identify sustainable practice appears to be very difficult".*

Indeed, only one person cited DEFRA's Charting Progress as presenting an integrated assessment of the health of marine and coastal areas, but acknowledged that *"more data and long term monitoring is required to understand a number of factors".*

The ability to understand scientific evidence may account for the views of respondents in relation to scientific evidence and River Basin Management, where a greater proportion (approximately one third) of respondents gave a "neither agree nor disagree" answer. Interviews revealed it was not the presence or absence of evidence that was in dispute, rather that the data provided by UKTAG for classifying water bodies was *"aimed at the professionally interested, and the size of the documents for a starter is a complete turn off*".

With regards to the makeup of the Liaison Panel being representatives of various interests such as consumers or recreational users (i.e. non-specialists) and the technical nature of data collection related to RBMP, one respondent made the point that:

> *"One doesn't know if what the scientist is saying is – what's the word? Conventional scientific wisdom. Which is not going to be argued about, or an individual's view which may be somewhat unique to them",*

Thus demonstrating that the communication of evidence from a purely scientific perspective alone, may be insufficient to convey the existence of a problem.

In acknowledging the existence of scientific evidence for a claim, the endorsement of such evidence at a higher level and the credibility of coastal, marine or catchment data should be considered in tandem. For this second statement on the questionnaire (responses shown in Figure 6.2 above), again the majority of respondents were in agreement that much of the evidence had the endorsement of DEFRA at the least, and also bodies such as the EU, OSPAR and ICES – although similarly to the point made about non-specialists taking RBM data at face value one respondent from a coastal partnership noted in relation to the evidence needs of policy makers that

> *"If UK government said, for instance on climate change, said this is the problem and they define*

it simply, and this is the data held by UKCIP for instance, that's what they'd run with, even though the scientists around the [case study area] might think that's not quite correct".

This statement indicates a difficulty in disaggregating what is known about problems at a national or international level from what evidence is needed to make a case at local level for action to be taken.

Another way in which the endorsement of scientific evidence was considered to be problematic by interviewees was in relation to the urgency of problems and the need for a precautionary approach, balancing immediate and urgent priorities with assembling a credible and comprehensive evidence base to justify action. As far as RBMP is concerned, some respondents noted that for the first round of RBM Plans, plan-making was proceeding due to time and other resource constraints without a comprehensive assessment of all the water bodies in the Dee river basin, with one member of the panel stating:

"If we had our way we'd like to go out and monitor and sample all the water bodies, but we've not been able to do that, and therefore we've just had to do it on a risk based approach. So that isn't necessarily the best situation to find yourself in, however, unfortunately, that's the reality and I think you just have to do the best job with what you've got".

This view confirms the point made by Newig *et al* (2005) and outlined in section 3.3.2 that the classification of water bodies (which was due to be completed in December 2004) would have to proceed without full information, however the contribution of stakeholders in consultation could contribute to a sufficient level of confidence in decision making.

For ICZM, this pragmatism and precautionary approach is also evident – one partnership officer saying that *"waiting for science to be proven is not good management because people probably deep down know something like climate change [is happening]"*. This view demonstrates how a solution to a problem may be needed more quickly than information about possible alternatives or consequences of actions can be assembled. The need for a precautionary approach was also observed by another partnership officer who noted that:

"You've got to look at the evidence base, you've also got to look at risks associated with the evidence... you've actually got to weigh the evidence you've got and the evidence you haven't got before proceeding".

So whilst the existence of scientific evidence and authority or endorsement of such evidence is generally regarded as important, at the case study specific or local level it is recognised that such prerequisites may be secondary to dealing with immediate needs. . In these cases, anecdotal or

"grey" evidence as one interviewee described it is prevalent and can potentially contribute to eliminating uncertainty or the rapid assessment of situations, although this brings its own problems in terms of usefulness, because this local knowledge provided by stakeholders *"isn't in a format that's appropriate and can be fed into the system"*. Therefore regardless of whether the information is factually correct, it lacks the quality assurance that may be associated with the methodological rigour expected from "official" sources. One partnership officer explains:

> *"You've got people going out to sea, not just fishermen – people who drive the ferries, all those people who've been doing that year in year out, and sometimes they're in a better position to identify any of the problems or opportunities and should be utilised more within science".*

This view is supported by another partnership officer, who said that *"I think [anecdotal evidence] is just as important to incorporate into any decision making process, I think it's maybe not as easy to find an agreed way to do that or an agreed format to do that"*.

The value of "grey" or anecdotal evidence is summed up by one interviewee, noting:

> *"That's the cultural dimension that people's perceptions of an area are important... I really do appreciate that the character of an area is very much down to perception and those who have lived there all their lives really do have a right to have that taken into account and not to see unnecessary, probably damaging, change"*

The emergence of perceived problems over a period of time and subjective rather than "objective" scientific evidence also demonstrates the difficulties coastal partnerships have in linking science with making the case for ICZM at local level. In relation to this issue, one interviewee claimed that coastal partnerships *"lack rigorous processes for dealing with data, that is, they don't have the means to assess or interpret that information which may be useful to them"* – a point which can be tied back to earlier comments about volume of scientific evidence available and the inability to disaggregate this into simpler, meaningful messages. Partnerships have attempted to address these gaps in a way by preparing "State of the Coast" type reports, for example Dorset Coast Forum's *Topic Papers* and *Rapid Coastal Zone Assessment* (2004), but there is no evidence to suggest such information gathering exercises have an impact on an audience beyond those already involved with the partnerships in some way.

To summarise, the following points can be made about the existence of, and authority for scientific evidence:

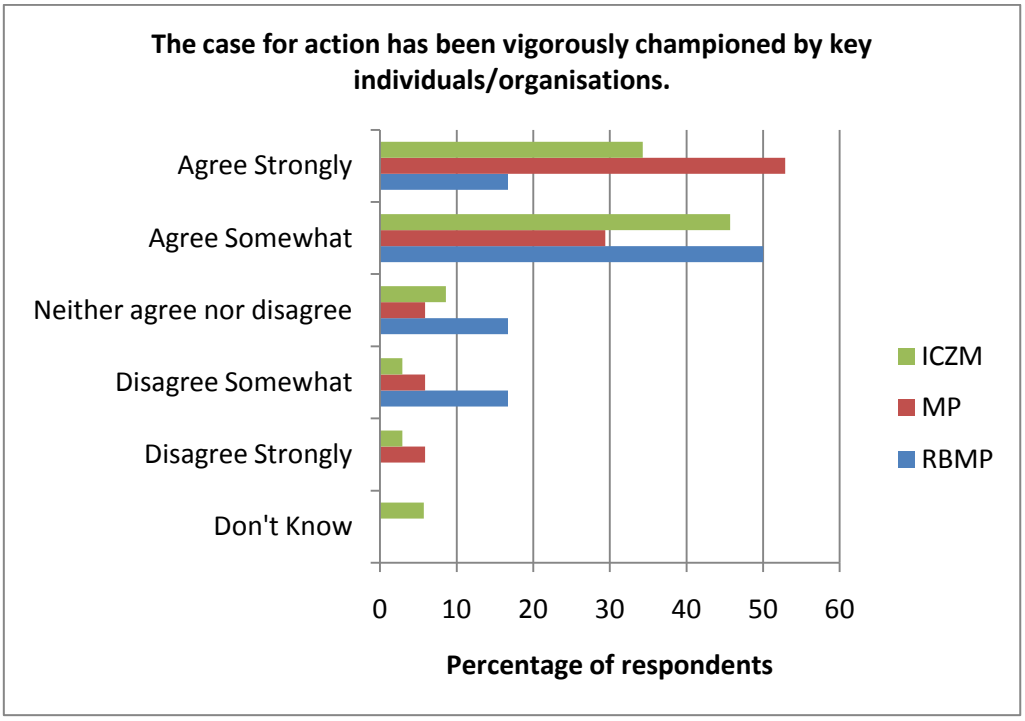
- Much of the evidence needed to make a claim is available, though there are occasions

where uncertainty or incomplete information still exists. Given the complexity of this data it is difficult to distil a clear picture about the state of the area (coast, marine, or catchment) being dealt with.

- Alongside the complexity of scientific information, there are difficulties in translating what is known generally to a locally specific evidence base for coastal planning regimes, in particular ICZM.
- The origins or credibility of scientific evidence is considered to be important in all regimes, however emotive and intuitive concerns about environmental change are highly valued and there needs to be more robust processes for feeding such information into decision making.

6.4.2 Existence of Champions/Popularisers Who Can Bridge Environmentalism and Science

Figure 6.3: Questionnaire Response – Champions/popularisers



Source: Author

This part of problem recognition has some clear links with the earlier discussions on scientific evidence and the ability to interpret data, as popularisers may provide alternative channel through which some of this interpretation might occur.

The questionnaire results relating to this matter (in Figure 6.3) show there is relatively high levels of agreement across all three regimes that champions or popularisers have been present and helped to make the case for particular regimes. Interviews have revealed that such popularisers are mainly from the NGO and academic sectors - for example the RSPB is cited by interviewees from both the marine and RBMP case studies as important for highlighting the changes to bird populations and habitats and the need for new legislation to protect these assets. WWF, MCS and the Wildlife Trusts are also regarded as vocal in the marine sector. In terms of academic popularisers, Professor Hance Smith and more broadly the personnel within the School of Earth and Ocean Sciences at Cardiff University are cited as influential upon the development of sea use planning and coastal management.

Where academic popularisers do seem to be missing is in the East Grampian case study, as one interviewee put it, *"in Scotland we don't have the same academic interest level"*. This is also the case

for RBMP, however one interviewee pointed out that:

> *"because we've had a panel of people made up of lots of different sectors, they all want to represent their own views",*

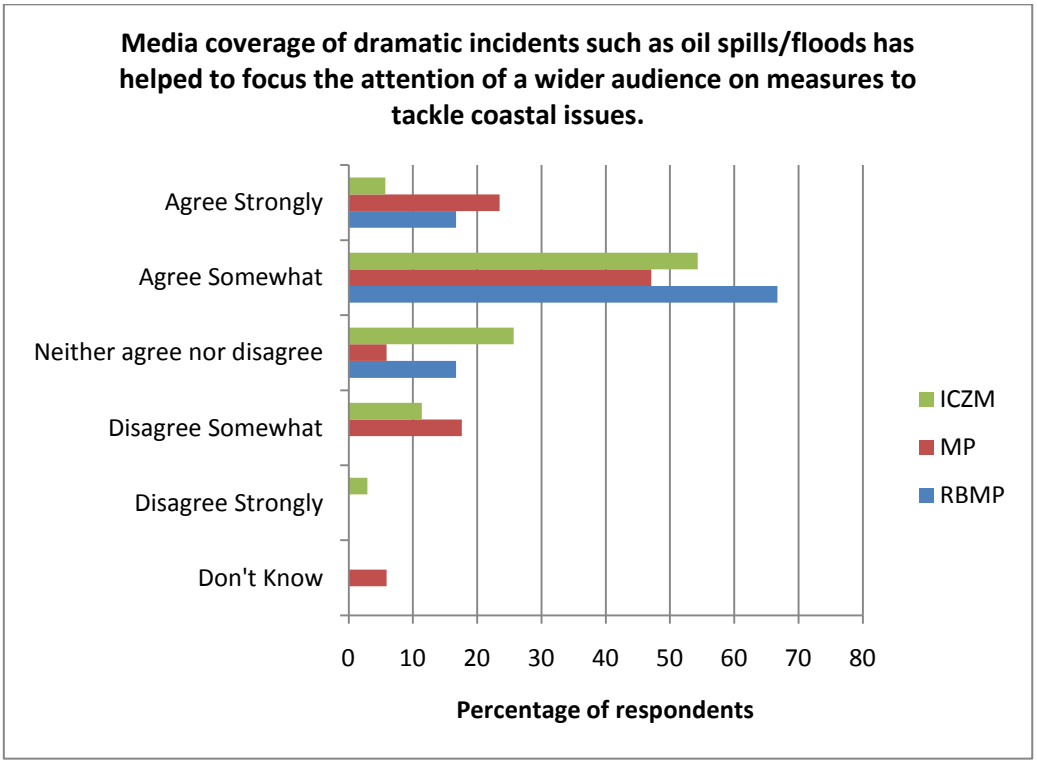
Thus indicating that the various members of the Liaison Panel themselves may bring their own specialist knowledge to bear on communicating problems.

For Dorset Coast there have been some quite specific popularisers, reflecting a local dimension to gathering and communicating scientific evidence that is not seen in the other case studies. In particular, Malcolm Turnbull, an employee of Dorset County Council was singled out for the work he undertook whilst working as a countryside ranger for the Council in the 1980s, reviewing the state of the Dorset Coast and making recommendations for future resource management.

This section shows therefore, that although popularisers can contribute to understanding science and advocating appropriate courses of action, the range of popularisers in terms of the sectors they represent are in fact quite small. There is an absence of popularisers from central government, with only one individual, Steve Collins at DEFRA being cited as a champion of ICZM and an important contact point for coastal partnership officers, and, apart from in the RBM case, few individuals from the commercial or industrial sectors taking on such a role.

6.4.3 Use of the Media/Dramatisation

Figure 6.4: Questionnaire Response – the Media and Dramatic Incidents



Source: Author

The question of media attention to dramatic incidents and its influence on the public interest in coastal/marine/catchment issues generated a high level of discussion in interviews. The questionnaire results (displayed in Figure 6.4) show agreement across all three regimes that the media has focused attention, but there is a degree of scepticism on the part of ICZM respondents about the impacts this has had.

One area of consensus across all case studies is, as the original question may have suggested, that negative or bad news stories tend to be those that are reported, *"in a very specific and emotive manner"* as one interviewee described it, and also in a way that does not get to the heart of the matter. An interviewee from the Dee case study noted in relation to flooding:

> *"pensioner marooned in bungalow for ten hours is the sort of thing that gets everyone's attention but in fact the real issue in the catchment might be that people have been managing the land in an inappropriate manner since the last war because of the government policy of bad drainage, and that's why the people are flooded"*

The symbolism of such dramatic incidents certainly places a problem in people's minds, but can also

be deceptive – on the Severn, one interviewee observed that in terms of getting media interest, *"the Severn Barrage does, tidal power which includes the barrage doesn't"*, at a time when feasibility studies for tidal power options were still in progress. Similarly, public interest in the Dee RBMP was influenced negatively by flooding events. One interviewee explained:

> *"Unfortunately the initial consultation started last summer, which was the start of the period of the severe flooding in the Severn. Not surprisingly people who responded to the EA across England and Wales were rather concerned about flooding because that obviously impacts directly on ordinary people and, people didn't care that the WFD was bigger than that".*

Another claimed the floods *"tempered a lot of the responses we got to the Significant Water Management Issues [document], and it actually took the focus off".*

The audience for media events was questioned by some interviewees, as one explained, *"The question assumes that there is a wider, interested audience for news on coastal issues. Experience suggests that this is not necessarily the case - those who live within a coastal area are, generally, more tuned into coastal matters but only as they directly affect their own interests"*. The point about personal interest is emphasized by another, who notes:

> *"you can have all the science in the world about sea level rise and whatever, until it's washing someone's house away or the road or it's affecting them, then suddenly people will take notice and do something about it".*

A further aspect of the audience for media messages is the extent to which they impact upon decision making. In the case of MSP, only one interviewee noted that climate change was *"keeping the attention span up"*, suggesting that this example replaces that of oil spills given in the questionnaire as a more contemporary dramatic news item. Two interviewees played down the urgency that media interest may possibly bring to the case for marine planning; one noting that the way MSP had come about was *"nothing to do with instantaneousness, but long hard, full frontal campaigning"*, and the other:

> *"I can see the argument but I think it has to be a sustained evidence based argument to really make an appropriate response to the issues."*

One somewhat unusual dimension to the discussion of media influence that was apparent in several interviews was reference to the BBC's "Coast" documentary series. Whilst many felt that this tended to focus on the more idiosyncratic aspects of coastal and marine activity rather than the mundane or routine, the series was perceived as being positive in terms of raising awareness of coastal areas.

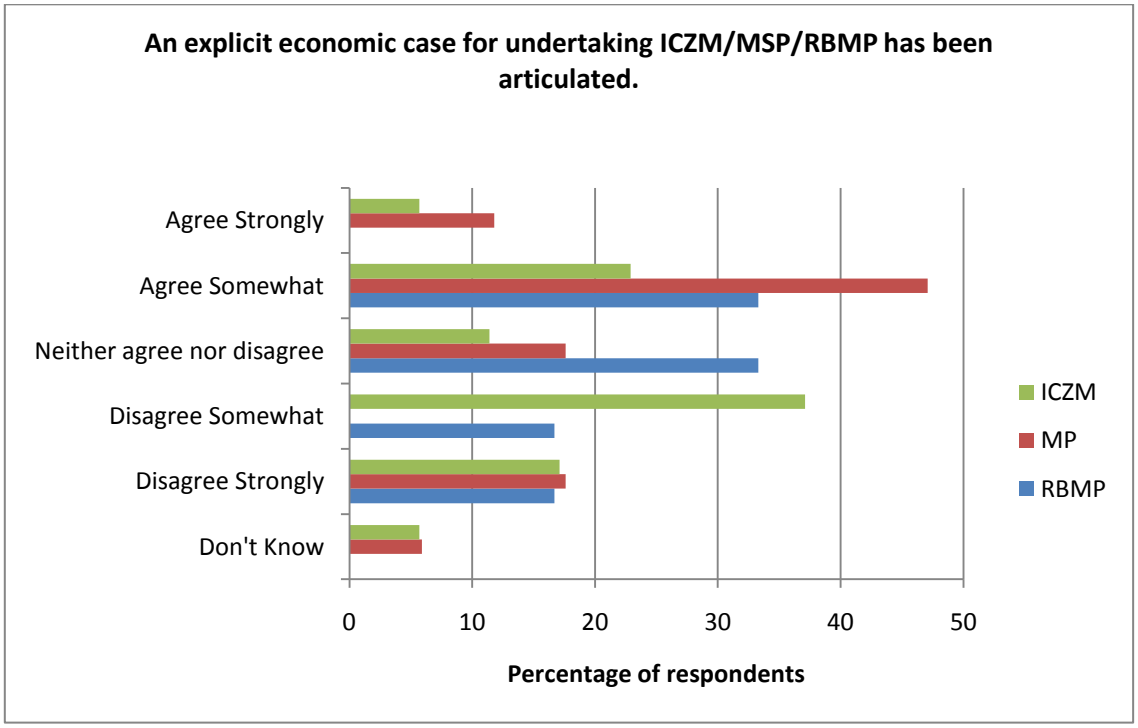
But, like more dramatic incidents, one interviewee said *"I do not know whether this has led to an understanding of the need for a more integrated approach to planning and management"*.

In this sense it appears then that the media and symbolic events may only provide superficial views on coastal, marine and catchment issues that do not create a sustained interest or contribution to the debate about the way problems are managed. For one interviewee, the problem of the media is summarised thus:

> *"The media want simplistic messages, and I don't think an area of activity like coastal and marine management always provides simple messages, particularly given the multiplicity of partners and issues in the subject area."*

6.4.4 Economic Incentives for Taking Action

Figure 6.5: Questionnaire Response – Economic Incentives



Source: Author

The existence of an economic case for taking action on coastal, marine or catchment problems produced quite a varying response across all three regimes, with a much broader scale of agreement

and disagreement, for example Figure 6.5 shows MSP respondents both agreeing strongly and disagreeing strongly, low levels of agreement in the case of RBMP, and a significant proportion disagreeing either somewhat or strongly for ICZM.

As with the problem of general scientific evidence for a problem and trying to link this with a locally or regime-specific case, interviews revealed a split in economic arguments between the need to address environmental changes generally, (for example in order to prevent further decline and escalating costs of remediation, or maintaining profitable resources such as fish stocks and tourist attractions) and direct financial benefits of having measures such as the WFD or marine planning in place.

For MP, some interviewees who agreed that the economic case had been made cited the evaluations contained within the MSP Pilot study and initial Regulatory Impact Assessment. However, this evaluation tended to focus on the benefits of a more integrated system of planning consents and coordination of sea uses, such as managing conflict between incompatible activities like dredging and laying cables, and reducing costs related with planning risk and uncertainty, and as one of the interviewees who helped to prepare the RIA pointed out, *"it remains to be seen what marine planning will actually cost and also what marine planning will actually deliver"*.

On the other hand, even when costs can be shown, as is the case for the Dee RBMP, this still might not produce a convincing case for action. According to one Liaison Panel member:

> *"The impact assessment data we have seen so far shows – if I use the more traditional phrase cost benefit analysis – it shows the costs are many times the benefits".*

And, from another member:

> *"The way that it looks at the moment is that there's an awful lot of expenditure going on water quality improvement and ecology improvements, however the benefits have not been made tangible enough".*

A third Dee interviewee stated, quite bluntly, that the *"UK government has got no choice"* in meeting the targets of the WFD and that the financial argument was *"irrelevant"*. However, taken in the context of the current economic crisis in the UK and the concerns felt by both government and the private sector regarding any kind of additional expenditure, reservations about the cost effectiveness of environmental improvements can justifiably be seen as a major influence on the way in which stakeholders view the economics of implementing the WFD.

Within the ICZM case studies, there are also difficulties in trying to articulate an economic argument.

For the Dorset Coast Forum, reflecting the move of some coastal partnerships towards a service provision model, the economic benefits of integrated working are currently being demonstrated through the C-Scope project, part of which is looking at zones for different sea uses and areas where economic activity can take place or is compatible with other uses, and through the resources and services they can offer to others such as providing GIS mapping services to local marine industries.

In the Severn Estuary Partnership it has also been recognised that the Partnership needs to demonstrate the "added value" they are able to bring to wider management processes. Noting that *"people see that simplistically as more pairs of hands"*, one interviewee stated that *"if you've got one ecologist that's hard pressed, and one planning manager that's hard pressed, and then there's an organisation like the SEP that's got expertise in coastal zone management that can help them deliver some of their statutory targets, then we sound more interesting"*.

One further issue in making the economic case for ICZM that is highlighted by interviewees from both SEP and EGCP is establishing the value of the assets and resources already in existence. One interviewee said *"one of the calls that has been made endlessly on the Severn has been to the partnership officers... the need for an economic valuation of the Severn in the context of renewable energy and some of these big schemes... I think the discussions have been trying to get an evaluation of the environment rather than ICZM as a process"*.

In EGCP project work around promoting quality of life and tourism assets has been a central activity, and alongside this it has been found that *"individual sectors are belatedly realising that the only way people in government are going to take them seriously is if they have facts relating to cold, hard cash. So they are trying to provide this evidence, and these component parts could be put together to make a case for ICZM. But there are few economists who would be in a position to understand what they are looking at"*.

A final point in relation to the economic case for ICZM is the Entec report on financial benefits to working in partnership at the coast, prepared for DEFRA, the Local Government Association Coastal Special Interest Group and the Coastal Partnerships Working Group (Entec, 2008). In interviews it was evident that this document was viewed with scepticism by those people working closely with coastal partnerships – one interviewee described it as a *"missed opportunity"* that *"didn't hit the target"*, whilst another referred to the use of a small number of case studies and the *"narrow"* focus of the research. However the same individual acknowledged that the report had generated discussion within DEFRA, helping them to have more recognition for coastal partnerships.

There are some general points raised by attempting to make an economic case for any of the three regimes, the main one of these being the difficulty in trying to capture or assign values to public or intangible goods. In relation to MSP, one interviewee noted that the sea itself is a type of public good, and that:

> "the question of value relates to the question of power, and the question of power to some extent relates to access to institutions which make decisions".

It was also claimed that *"some organisations have got no device for even coping with non-financial based value systems"*.

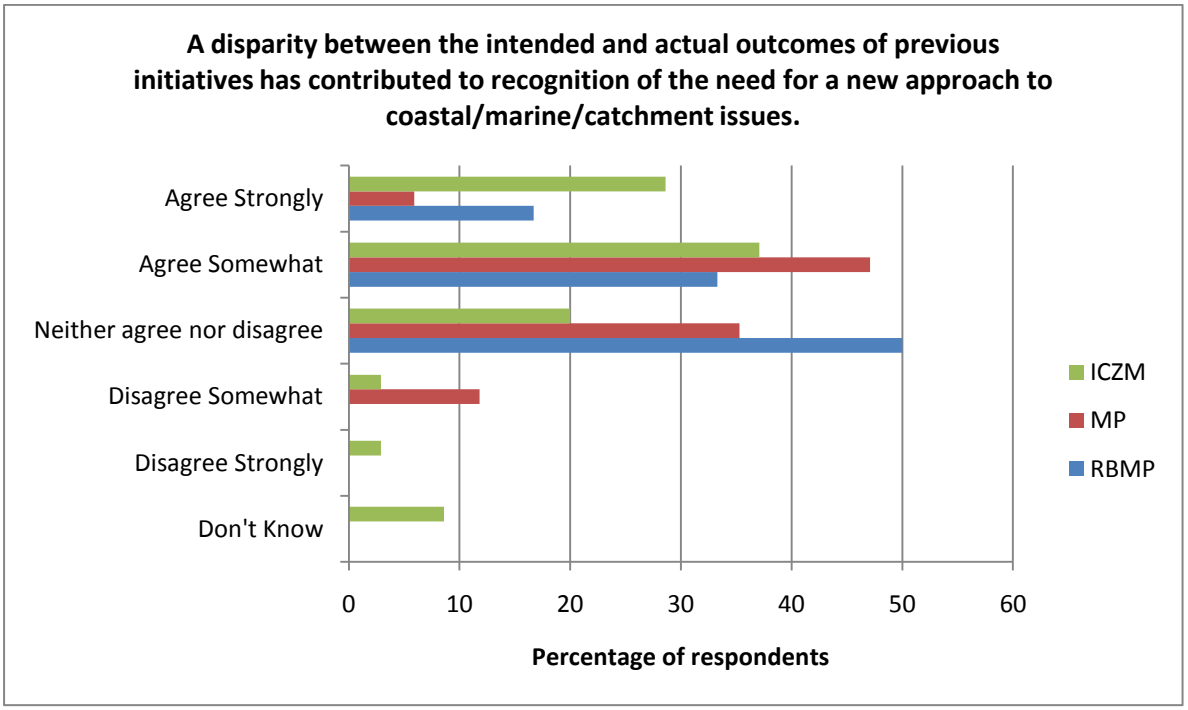
Another intangible benefit was seen as the "insurance", as one interviewee termed it, provided by implementing an effective, integrated management process. This view was supported by another interviewee, who stated that *"the economic argument for getting ICZM efficiently right as best as we can is quite strong... I don't think there's any point in divorcing good ICZM practice from the socio-economics of the community in which you're working"*.

In relation to MP the potential tensions between economic interests such as offshore renewables or aquaculture and Marine Conservation Zones in situations that *"would be better dealt with through integrated marine planning"* also demonstrated the need for the most appropriate measures to be in place to prevent future conflicts.

The comments generated by the questionnaire and interviews in relation to economic incentives, like the use of scientific evidence, present a complex picture of the way in which information is interpreted, in both general terms of the benefits of working (together) to prevent unsustainable or negative patterns of development, and specifically on the costs or benefits derived from implementing a particular regime. Of course, notions of what costs or benefits are considered worthwhile cannot be divorced from the political and cultural contexts in which environments and their problems are constructed. Therefore, attempting to build a case for action on a purely economic basis is not possible.

6.4.5 Outcomes of Previous Initiatives

Figure 6.6: Questionnaire Response – Outcomes of Previous Initiatives



Source: Author

Although this topic in the questionnaire does not come directly from Hannigan's prerequisites, but rather a synthesis of feedback elements used by Kingdon, knowledge of previous initiatives through monitoring and evaluation remains important as a factor somewhere between scientific evidence of a problem and the dramatic or symbolic phenomena that can motivate claims making.

The questionnaire results (in Figure 6.6) show a range of responses from quite strong agreement to indifference, with only very small numbers in the cases of MP and ICZM disagreeing. What the questionnaire results alone do not show is that the understandings of interviewees of the relative achievements of previous initiatives are not so much framed in terms of "failure" to meet specified objectives, but rather the identification of gaps in the prevailing systems of planning and management.

For MP, one interviewee believed that *"there is very strong agreement that the existing system doesn't cope with the realities of what goes on"*, and another, considering MSP in the light of coastal and estuary strategies that were unable to deliver real benefits stated:

> *"I think certainly marine spatial planning as a concept really came out of the Irish Sea Pilot marine conservation review that JNCC pushed – they were the ones that proposed having a pilot*

study on MSP to look at what it could contribute. They were coming from a nature conservation perspective, but they were seeing MSP as something more holistic".

This illustrates a view of MP as a more distinct approach to marine and coastal management that attempts to do something different rather than simply being reactive to the mistakes of the past. The novelty of the Marine Bill is also supported by reference to the literature review carried out as part of the MSP Pilot, which searched for examples of MSP practice from other countries. This literature review was described by one interviewee as *"remarkably empty"*, with a focus on Belgian marine planning practices and little else. Such evidence shows that not only were gaps identified in national policy, but the policy vacuum was more widespread at the European level.

For RBMP, the need for a more integrated approach was indentified *"to bring all the disparate legislation under one umbrella and give it all a commonality"*. One interviewee observed:

"Nowadays people, even the engineers in places like the EA are realising that you have to think much more broadly and you've got to think of the whole catchment, what it is that's happening across the whole".

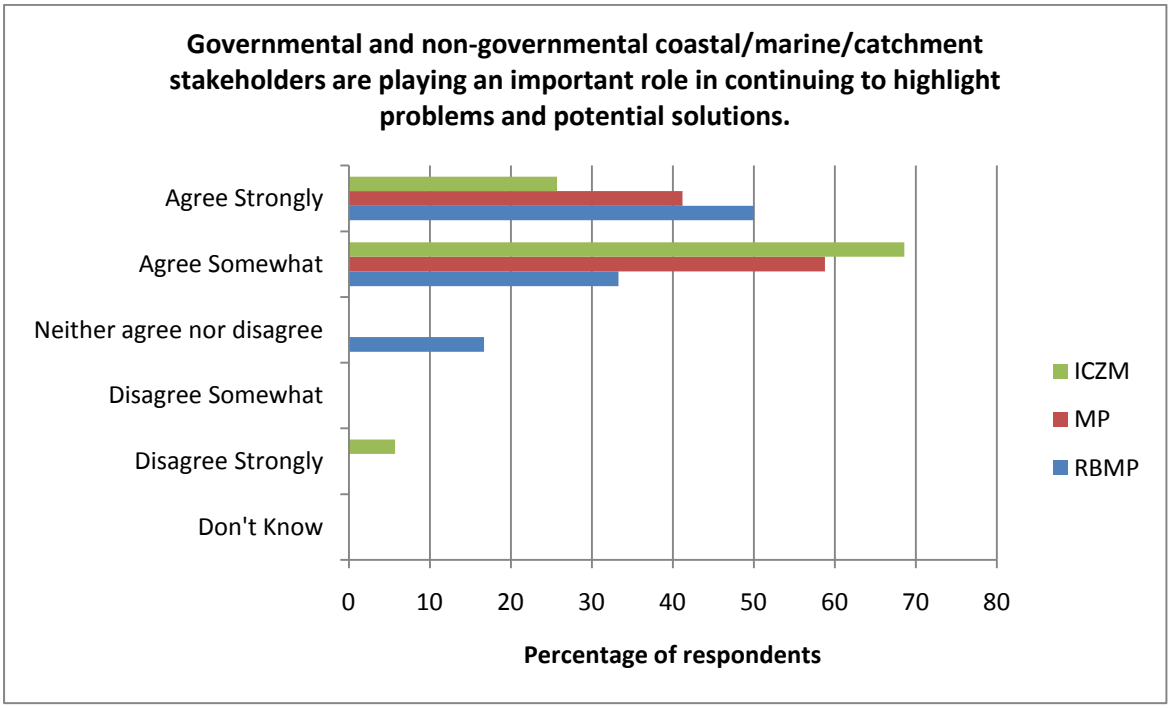
The problems of ICZM "implementation failure" due to the non-statutory nature of ICZM activities in the UK have been well documented by others (and referred to earlier in this thesis), and are confirmed by interviewees. One describes *"the ability of coastal partnerships to produce their own management plans for delivering ICZM locally is very useful, but there has been a lack of policy at government level"*. Another stated:

"Their management plans have tended to become left on the shelf, therefore there is a need for a tiered, statutory system of coastal and marine management".

Such a statement shows a further development of the argument, being coupled with a particular solution to the problem and thus beginning to show a more comprehensive argument for improving the system of ICZM. This more developed argument can then move the problems of ICZM further through the process of agenda setting.

6.4.6 Stakeholders Continuing to Highlight Problems and Potential Solutions

Figure 6.7: Questionnaire Response – Stakeholders Highlighting Problems and Solutions



Source: Author

Here the questionnaire turned to the final prerequisite of Hannigan's model to examine those organisations or individuals that may act as public sector sponsors, legitimising claims about a problem and advocating particular responses. In many ways the questionnaire and interview responses to this issue (see Figure 6.7) bear great similarity to those regarding popularisers or champions, representing a line of continuity from the recognition of a problem to devising a solution.

The WWF and RSPB stand out particularly as a sponsor in ICZM and MP, with one interviewee noting:

> *"they have been good for ICZM in the past, but their focus has changed onto marine planning and I'm sure that's just the way it should be, I think it's probably part of a cycle that they started off with coastal management because it was perceived as being an easy fix about fifteen years ago"*.

As MSP followed on in the cycle from ICZM, *"the wildlife trusts were the ones that were on the case first, but actually the nature conservation agencies [were] pressured and then came on board, then DEFRA"*. Separately, the Crown Estate, which facilitated the establishment of a Seabed User and

Developers Group representing marine industries, were noted as supporters of the Marine Bill, with one interviewee noting the joint statements produced, *"setting out a lot of areas of agreement on the need for action"*.

For the WFD, sponsors have been less obvious, but progress towards implementation has brought to light organisations that may act as sponsors for further iterations of the plan making cycle. One Liaison Panel member said:

> *"the consultation in its initial stages is starting to flag up a few organisations that are maybe saying actually we are doing this, or we are doing that, and if we can understand the issues in the water bodies and the pressures we can then think of things we can do"*.

Therefore by going through a full cycle of RBM planning (or indeed a full policy cycle), problems and solutions may be reframed by sponsors in a way which is not currently being seen.

Whilst the work of NGOs is viewed positively in all cases, there is one significant caveat. As one interviewee described, *"it's a continually evolving iterative process and NGOs are very much ahead of the curve in a lot of this because they don't have to worry about actually implementing policy"*. In such cases, where an organisation lacks the resources to deliver a proposed solution the construction of a claim must therefore precede or form part of a collaborative dialogue about potential solutions to the problem and how they may be achieved.

6.5 Analysis – Factors Contributing to Problem Recognition

Returning to the four key research questions, the first of these has now been addressed by the description given above of the case studies in relation to problem recognition and Hannigan's model of the social construction of an environmental problem. An analysis of this data now forms the basis for addressing the second question, namely:

- Which preconditions are most significant in making the case for action for ICZM, MP and RBMP?

As part of the discussion of which preconditions or factors feature most prominently in the rhetoric of claims makers, some further commentary will be made on the usefulness of Hannigan's model as a framework for attempting to analyse the way in which problems are constructed. As has been proposed in the literature review (Chapter Three), it may be possible to refine Hannigan's model,

reflecting the nuanced way in which each of the prerequisites can have a weaker or stronger presence in the construction of a claim.

Using the questionnaire and interview data that has now been reported, it will be possible to demonstrate to what extent the model may be redeveloped to show such nuances. Furthermore, the identification of significant factors in making the case for coastal, marine and catchment problems may help to explain how an issue moves from "problem recognition" on to the governmental agenda and towards implementation of a solution.

Given that Yearley (1992) and Hannigan (2005) note that the origins of claims about environmental problems are rooted in scientific findings, it is no surprise that the presence of scientific evidence features strongly in the social construction of coastal, marine and catchment problems, however the questionnaire and interview data shows that there is not one factor alone which defines the case for action in each of the three planning regimes as all of Hannigan's prerequisites are evident to a greater or lesser extent.

For the ICZM cases, the social construction of a coastal problem can clearly be seen to be based on four main prerequisites. In the first instance, the existence of scientific knowledge, despite some of the difficulties described by interviewees relating to its interpretation, is a very significant factor as the sheer number of scientific reports being published and research work undertaken both inform stakeholders and support their claim for a problem.

Whilst there is a slightly lower level of agreement in questionnaire responses on whether there has been endorsement for this evidence, *"grey"* evidence, or bottom up information from networks of stakeholders, also contributes substantially to knowledge of more locally specific issues. Such local information appears to be widely accepted as valuable by local stakeholders, however awareness of methodological shortcomings may prevent such knowledge being used more forcefully in claims making.

The work of popularisers is important too, particularly those popularisers from the academic and local government sectors. Their specialist knowledge of coastal problems and ability to communicate this through networks of peers and to a wider audience not only helps to draw attention to problems, but also places them in a role as institutional sponsors as they advocate a particular course of action to remediate current problems. The role of academics and local government as popularisers and sponsors remains particularly strong as the NGO sector is observed to have moved its support towards other measures for dealing with coastal issues, such as Marine Planning and Marine Conservation Zones.

The role of the media in highlighting coastal problems has already been noted for the way in which coastal problems may be portrayed in a negative or simplistic light, and thus this prerequisite shows itself to be a weaker element in claims making.

Economic incentives are also weakly represented in the claim for a coastal problem, as those working within coastal partnerships did not feel that opportunities such as the Entec report (2008) had been comprehensive or persuasive enough to articulate the financial benefits of working through coastal partnerships. At a broader scale too, although generic benefits or incentives are understood, the difficulty in attributing costs, particularly when the extent of environmental change or value of existing assets are contested, is difficult to determine. Such uncertainty or contestation then prevents claims for coastal problems or arguments in favour of ICZM based on economic incentives being made effectively.

The recognition of ICZM "implementation failures" and lack of integrated working is the last factor to have a marked effect on claims making. Having already been through one or more iterations of the policy cycle, conceptions of a coastal problem are framed in terms of a more persistent management issue that requires attention and as such has the potential to shift the discourse from being purely a case of problem definition to exploring solutions. This is especially the case when popularisers/sponsors have a large influence in shaping the discourse around their own constructions of ICZM failure and improved practice, which may be defined in the scientific-rational manner observed by Davos (1998)

To summarise, claims making for ICZM is based mainly on the prerequisites of scientific evidence, popularisers who maintain a role as institutional sponsors, and the knowledge or experiences of previous initiatives. Media attention has a limited impact on coastal problems, and economic incentives for taking positive action, although superficially apparent, are not expressed in clear enough terms.

In the case of MP, scientific evidence again is a crucial component of claims making, especially in relation to the understanding of environmental impacts on marine ecosystem goods and services, climate change, resource depletion and in developing the potential for offshore renewable energy. As in the other planning regimes, endorsement of the evidence is considered less important, but nevertheless necessary. The existence of popularisers from the NGO sector such as WWF, the Marine Conservation Society and Wildlife Trusts bringing evidence of marine ecosystem degradation to a wider audience has helped to translate some of that science into a more pressing case for action, albeit on a conservation-led basis and feeding perhaps more directly into the call for Marine

Conservation Zones as part of the Marine Bill rather than marine planning itself.

The continued support of NGOs as institutional sponsors for marine planning represents another of Hannigan's prerequisites that shows strongly in terms of making the case for action on marine problems. However, one notable absence from interviews on the topic of institutional sponsors has been international organisations or sponsors such as the UN, OSPAR or even the EU. Indeed, only one person referred to international pressures that may legitimise the call for a Marine Bill, saying:

> *"It is to the UK's credit that it is carrying on with the Marine Bill without waiting for the EU Marine Strategy Framework Directive to be implemented."*

The media, which is another central component to Hannigan's model, and dramatisation of marine problems appears to be of limited influence – as one questionnaire respondent noted, *"most marine issues are not necessarily dramatic but can be diffuse and permitted"*. In this sense, the media response to the complex causes and cumulative impacts of marine ecosystem degradation is constrained by the long term nature of problem emergence, and, lacking the urgency of action, or in the case of diffuse pollution, the kind of imagery that resonates with a broader audience, some marine problems are in fact difficult to portray in simple visual terms. This observation also goes some way to confirming the point made by another interviewee that the communication of marine problems and the subsequent development of the Marine Bill has been founded upon sustained campaigning from NGOs and institutional sponsors rather than reactions to one-off incidents that briefly highlight particularly acute or critical issues.

In terms of the economic case for tackling marine problems, the questionnaire responses show that this prerequisite features less strongly in its presence when considered in relation to scientific evidence or media attention. This appears unusual, given that most interviewees were able to cite the RIA for the MSP Pilot and broader financial benefits, for example of protecting fisheries. However, many of the positive responses fall into the "agree somewhat" rather than the "agree strongly" category, perhaps marking that the articulation of general benefits of protecting the marine environment are more widely known than the economic case for MSP itself.

As has already been pointed out, the actual cost of implementing the Marine and Coastal Access Act (and in particular marine planning) and the financial benefits to be derived from its implementation are not truly known, given the broad value range given in the DEFRA (2008a) valuation of benefits from Marine Conservation Zones and the deficit in information related to other aspects of Marine Planning. Nevertheless it should be noted that since the MSP Pilot and case study interviews that a growing literature on valuing ecosystem goods and services has developed, see for example the

World Bank (2009). Had such research been available earlier, this might have provoked a stronger agreement amongst questionnaire respondents about the presence of economic incentives for taking positive action.

The disparity between the intended and actual outcomes of previous initiatives also proves to be a weaker factor in making the case for MP, despite being acknowledged in interviews; however it has been noted that this is largely due to the identification of gaps in policy coverage rather than respondents experiencing a failure to implement measures that meet specific targets.

In this instance, therefore, considering the prerequisites that hold the greatest weight in socially constructing claims for a marine problem, a combination of the existence of scientific evidence, endorsement, popularisers and institutional sponsors appear to be the main drivers. A note of caution must be attached, however to this and all other cases in which an environmental problem is socially constructed – as one interviewee pointed out in relation to the scientific evidence for a marine problem:

> *"...management decisions are all about judgments based on science and informed by science and I think sometimes people try and pretend that it's <u>just</u> science which you use, but the amount of judgment in many cases can often be quite large, and sometimes there may be very little science and a lot of judgment. I think we'd normally argue that it's important that there is science, but you recognise there comes a point at which doing the science stops and judgment and negotiation begins".*

This demonstrates, that even where "objective" information exists, many other claims and counter-claims will affect the interpretation of evidence and hence the social construction of the problem.

The media, economic incentives and the impacts of previous initiatives, whilst all present in claims making, have not been the decisive factors in the social construction of the marine problem.

For RBMP, the social construction of a catchment problem is based on a much more rounded view of Hannigan's prerequisites than is found in the marine case, with no standout factor driving problem recognition. Scientific evidence and its endorsement still feature relatively strongly in constructing a problem, however there is a tension between the "official" science of UKTAG and the Environment Agency that is used to classify water bodies, and what is either known or not understood by the Liaison Panel Members. Such tensions highlight the issue of top-down power in the implementation of the WFD as the organisation that will have ultimate responsibility for ensuring that objectives are met is also the organisation that defines the "problem" (i.e. waters that do not have good chemical and biological status). This is turn is reflected in the lack of confidence some Panel members express

in the classification process, thereby limiting the impact science has in individual constructions of the problem.

In common with the MSP case, popularisers from the NGO/conservation sector are an important part of making the case for RBMP, however the water quality objectives and targets set by the WFD are secondary to the more stringent Birds and Habitats Directives (Directives 2009/147/EC and 92/43/EEC respectively), which require Special Protection Areas and Special Areas of Conservation that include many inland water bodies and estuaries to be maintained in favourable conservation status. Thus the support of NGOs for the WFD may be in recognition of its contribution to more ambitious conservation targets, rather than as a standalone piece of legislation. Also for this reason, NGOs retain a role as institutional sponsors of RBMP alongside the Environment Agency. As has been stated, progress towards implementation is starting to *"flag up"* new sponsors, but by and large this prerequisite has not proven to be a significant part of the discourse on catchment problems.

Media attention to problems in the case of RBMP is again, in common with MSP, of limited influence and even liable to frustrate or distort claims making about water quality issues, as has been shown in the case of flooding events and the way these shaped people's responses to RBM consultations. The WFD may also be of little interest to the media because water quality improvements have a professional interest base but minor relevance to the general public. As one interviewee explained:

> *"unless it impacts on people I don't think there would be that focus of attention – and to be fair, when you think of water quality it would have that reaction if drinking water was affected."*

Without the dramatic, or personal experience of such problems, the public cannot be engaged to any great extent.

Both questionnaire responses and interviews have indicated that economic incentives for action in the case of RBMP are very few, and rather it is the negative aspects of the costs of delivering the Programme of Measures that generate the most discussion. Therefore, although economic arguments are an important part of the discourse in constructing a catchment problem, the apparent lack of incentives for taking positive action means that this prerequisite presents itself weakly in the overall construction of a problem. Finally, the impact of feedback from previous initiatives, or more specifically the identification of gaps in water management measures are recognised as contributing relatively strongly to the construction of claims for RBM.

In the social construction of catchment problems, therefore, whilst all of Hannigan's prerequisites are present and discussed by the interviewees, the actual definition of the problem tends to take place at a higher level than the river basin district level represented by interviewees. The result of

this is a lack of engagement in the construction of the problem, which is evident in the criticisms of scientific evidence and negative comments on the economics of implementing the Programme of Measures. If a more bottom-up approach were to be taken, this would be seen in the stronger presence of certain prerequisites as a groundswell of opinion may build up around, for example, evidence of deteriorating water quality or the need to replace or reform existing legislation. The social construction of a catchment problem thus clearly demonstrates the need for greater discourse and collaboration in problem definition and agenda setting.

6.6 Conclusions

Returning to the first two key questions outlined in the methodology and at the beginning of this chapter:

1. How are the conditions outlined by Hannigan for the successful social construction of an environmental problem viewed in relation to coastal planning regimes? And

2. Which preconditions are most significant in making the case for action for ICZM, MP and RBMP?

The first of these questions has now been answered - following the literature review in Chapter Three which examined the social construction of coastal, marine and catchment problems from a theoretical perspective, the empirical investigation of the same issues seen through the eyes of stakeholders which has been reported in the preceding sections provides additional answers to this question (albeit through a limited number of stakeholder perspectives). The interview and questionnaire data also provides the evidence needed to determine an answer to the second question of which preconditions are most persuasive in making a case for the construction of a problem.

Furthermore, the interview data has revealed some interesting debates about the social construction of problems which could only have been alluded to through the examination of literature in Chapter Three, with some of the ideas about top-down and bottom-up styles of implementation and the links between different levels of governance becoming more apparent.

In attempting to determine which preconditions are most significant for the social construction of coastal, marine and catchment problems, both the questionnaire responses and interviews

demonstrate that scientific evidence is considered the most important aspect of constructing a claim, although this is to be expected.

Where each regime differs on this aspect of constructing a claim is in the origins and credibility of such evidence – this is particularly so in the case of ICZM where there may be difficulties in distilling evidence into simpler forms and there are tensions created in the synthesis of what might be termed credible or conventional scientific evidence from sources such as DEFRA and OSPAR and equally valued "grey" or local-level observations. This is in contrast to Marine Planning, where evidence seems to be more widely accepted and understood, but more interestingly in the case of RBMP a significant issue is revealed in the top-down nature of the way waters have been classified at a higher level by UKTAG and the Environment Agency and this evidence has been handed down to regional and local level. This implies a democratic deficit in the way that information is produced, and like with the tensions evident in the use of conventional and "grey" evidence for ICZM, demonstrates to some extent the need for greater collaborative working to build a shared understanding of scientific evidence. This shared understanding should encompass different layers of governance and address not only the significance and interpretation of evidence by different groups, but also begin to cover gaps in data that are problematic to all stakeholders.

Considering popularisers and institutional sponsors together as they are often one and the same, both are quite significant in all cases, however RBMP shows a lower presence of popularisers or champions than ICZM or MP, and this again may be linked to the way in which drivers for action are top-down pressures from within the political system rather than external forces such as the NGO sector which is prevalent in Marine Planning, or the more bottom-up academic and local figureheads that contribute to calls for ICZM.

Possibly the least significant precondition in claims making is the use of the media or dramatic incidents. Although the questionnaire responses showed that the media and dramatisation are present, their potential to distort arguments or perspectives was quite clear in the case of RBMP and flooding issues and also was noted in ICZM for its potential to draw attention away from more fundamental issues. In the case of Marine Planning, sustained campaigning rather than isolated incidents were considered to be a more realistic foundation for action.

The low significance of the media can also be related to the additional prerequisite used in the questionnaire based on Kingdon's recognition of feedback in agenda setting. This has been an important factor to acknowledge and bring out in discussions of problem recognition, demonstrating that much of claims-makers problem recognition stems from a discourse around knowledge of

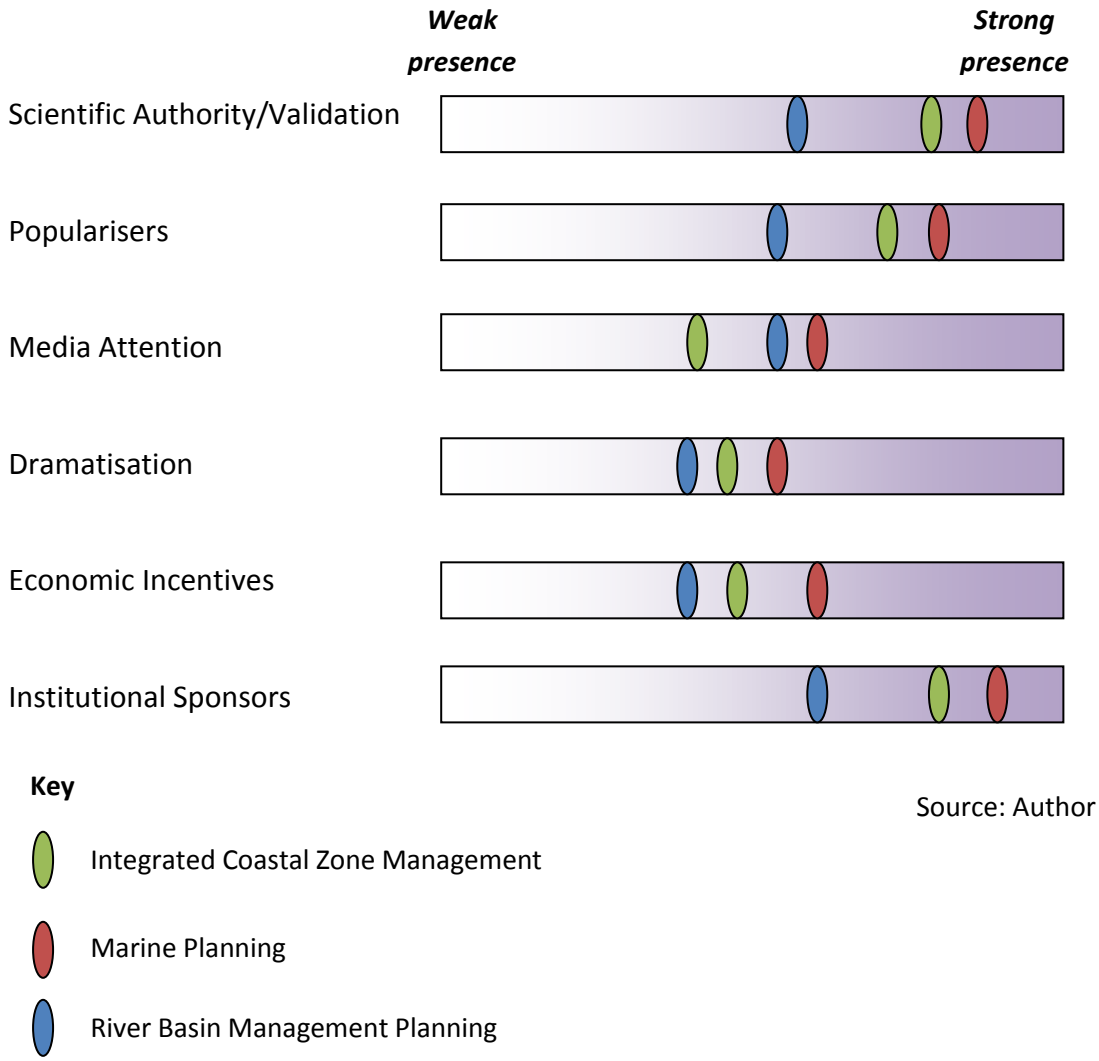
existing earlier or less sophisticated constructions of coastal, marine and catchment problems and the search for improved ways to deal them, rather than the framing of problems as "novel" (Hannigan 2006:78) which may be the case when the media brings something to light.

Finally, the significance of economic incentives is thought to be relatively low, and their usefulness in arguing the case for action is difficult to discern, given that more may be known about the costs of taking action (as in the case of RBMP) than is known about the potential benefits. In some cases the lack of information leads to an economic case in favour being disputed outright, as is shown in Figure 6.5 by the number of respondents who disagree somewhat or strongly for each regime.

However one caveat must be added to the discussion of economic incentives regarding the makeup of the sets of case study interviewees and questionnaire respondents, that being for interviews a relatively low number of individuals from the private sector were spoken to, and the anonymous nature of the questionnaire means it is not possible to say what proportion of respondents came from the private sector. This being the case, it may be said that for many participants in the case study research economic aspects of coastal management, although understood, are not a primary concern or motivation, and this may have influenced levels of agreement or disagreement on the presence of an economic case.

To bring to a close this discussion of which preconditions or prerequisites of Hannigan's model are most significant for the social construction of coastal, marine or catchment problems it is necessary to return to the statements made in Chapter Three about how Hannigan's model may be refined to show the more nuanced way in which claims can be made, with Figure 3.2 used to give a visual representation of how this may be demonstrated in relation to ICZM. This exercise may now be repeated for ICZM, MP and RBMP, with the empirical data reviewed in this chapter used to inform approximate indicators of the way in which each prerequisite features in claims making.

Figure 6.8: Contributions to Claims for Coastal, Marine and Catchment Problems



Source: Author

Figure 6.8 above thus demonstrates the main findings related to the first theme in the empirical work – namely how coastal, marine and catchment problems are socially constructed through different values and discourses about what constitutes a "problem", with scientific evidence, popularisers and institutional sponsors featuring most strongly in most cases[9]. The consequences of the way these problems are framed for implementing a response will be discussed in the next chapter.

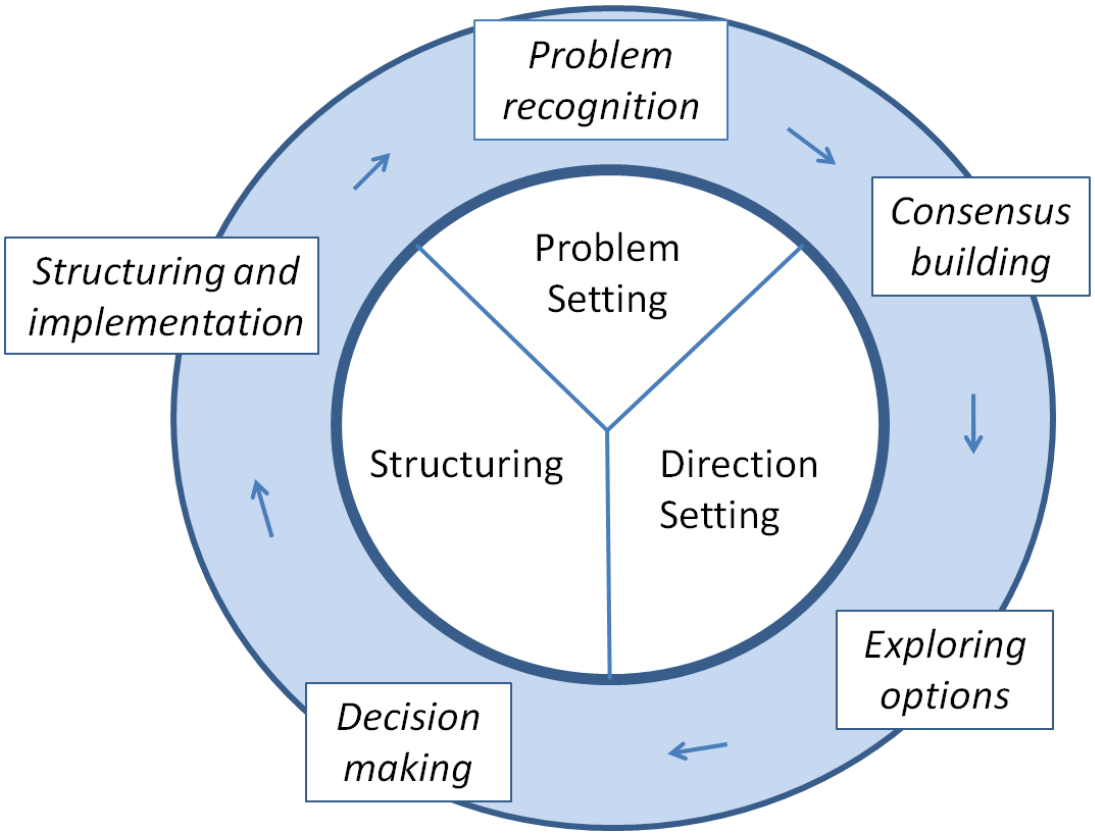
[9] Positions along the scale in Figure 6.8 are based on a combined percentage of "agree strongly" and "agree somewhat" responses to questionnaire statements.

CHAPTER 7: Incorporating Stakeholder Perspectives and Improving Integration through Collaboration

7.1 Introduction

Following on from the analysis of the "Problem recognition" phase of the collaborative policy making cycle in Chapter Six, which focused on the social construction of coastal, marine and catchment problems in practice, this chapter now focuses on the remaining stages of the cycle, which is shown in Figure 4.6 below, and contributes to meeting the first part of Objective Five, which is *to evaluate how collaboration is embedded within the plan making processes of coastal organisations and provide recommendations as to how collaborative policy making may be improved.*

Figure 4.6: the Collaborative Policy Making Cycle



Source: Author, based on Jarvis (2007)

In presenting the findings from the remaining sections of the questionnaire and associated interview responses, this chapter attempts to answer the third and fourth key questions set out at the end of the literature review, namely:

- To what extent is the collaborative model proposed by Gray reflective of coastal planning practice?

- As coastal planning regimes go through the policy cycle, what factors have the greatest influence on policy formulation and decision making?

The sections of this chapter therefore consider the stages of consensus building, exploring options, decision making and structuring and implementation. For each stage in the policy cycle, the main findings from the questionnaires and interviews are described based on the propositions outlined by Gray and others derived from the author from an analysis of the policy cycle. At the end of each policy stage, some key findings will be noted on how the propositions made about the collaborative policy making cycle are being addressed in practice. The final section of the chapter will draw together some overall conclusions on the way collaboration is utilised in ICZM, Marine Planning and River Basin Management Planning.

7.2 Consensus Building

As the policy cycle moves on following the social construction of an environmental problem or the problem recognition stage, there comes a period of consensus building. It is at this point when individual constructions of the problem are brought together, and through a process of coalescence, individuals or organisations begin to find the common ground which will facilitate further collaborative action. Table 7a below outlines the propositions that have been explored in this section, and Table 7b shows questionnaire responses to consensus building propositions.

Table 7a: Consensus Building – Propositions

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**
Interdependence	*The greater the degree of recognised interdependence among stakeholders, the greater the likelihood of initiating collaboration.*
Identification of stakeholders	*The stakeholder set needs to reflect the complexity of the problem under consideration if collaboration is to occur.* *From an information standpoint, the more stakeholders who participate in problem solving, the more effective the collaboration will be.* *Efforts to convene all stakeholders simultaneously will likely be thwarted by changing dynamics of the domain. Therefore, inclusion of stakeholders should be viewed as a process of continual adaptation.*
Legitimacy among stakeholders	*Shared perceptions of legitimacy are necessary to initiate problem-setting. Perceptions of legitimacy will be shaped by historical relations and the existing power distribution among stakeholders.* *Exclusion of legitimate stakeholders during problem setting will constrain subsequent implementation of solutions.*
Convenor	*Collaboration will be enhanced by convenors who possess legitimate authority and appreciative skills and who can serve as reticulists to rally other stakeholders to participate.*
Beliefs about outcomes	*Problem-setting efforts are enhanced when stakeholders expect that the benefits of collaborating will outweigh the costs and when prevailing norms support collaboration. If positive expectations are not present, incentives to induce participation will be necessary*

Source: Author

Table 7b: Questionnaire Responses for Consensus Building

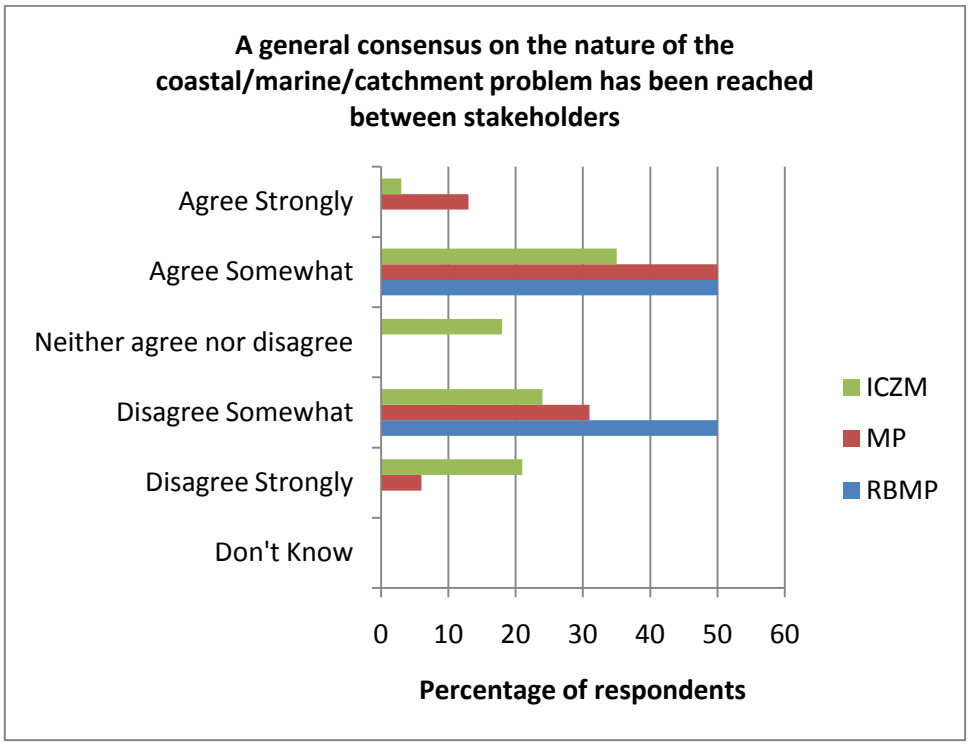
A general consensus on the nature of the coastal/marine/ catchment problem has been reached between stakeholders.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	1	12	6	8	7	0	6
MSP	2	8	0	5	1	0	1
RBMP	0	3	0	3	0	0	0
There has been recognition that the competing jurisdictions and interests of government departments have prevented more integrated measures to tackle coastal/marine/catchment issues being proposed.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	13	14	4	0	0	3	6
MSP	9	7	0	0	0	0	1
RBMP	1	2	1	1	0	1	0
A full range of stakeholders have been included in the discussion of the coastal/ marine/catchment problem.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	6	18	0	8	1	1	6
MSP	5	9	0	1	1	0	1
RBMP	0	4	1	0	1	0	0
Partnership working has been proposed as an important step towards achieving coastal/marine/catchment objectives.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	19	9	2	2	1	1	6
MSP	7	9	0	0	0	0	1
RBMP	4	1	1	0	0	0	0

Source: Author

7.2.1 Interdependence: Consensus on the Nature of the Problem, and Recognising the Lack of Integration as a Barrier to Collaborative Working

In reporting the data gathered about interviewees' experiences of consensus building, the statements on reaching a general consensus on the nature of the problem and recognising that the competing jurisdictions of government departments have prevented integrated measures are considered together (see Figures 7.1 and 7.2). This is largely due to the fact that the lack of integrated working has been recognised by interviewees as key driver in the social construction of coastal/marine/catchment problems and thus forms the basis for much thinking about the areas in which stakeholders are able to find consensus.

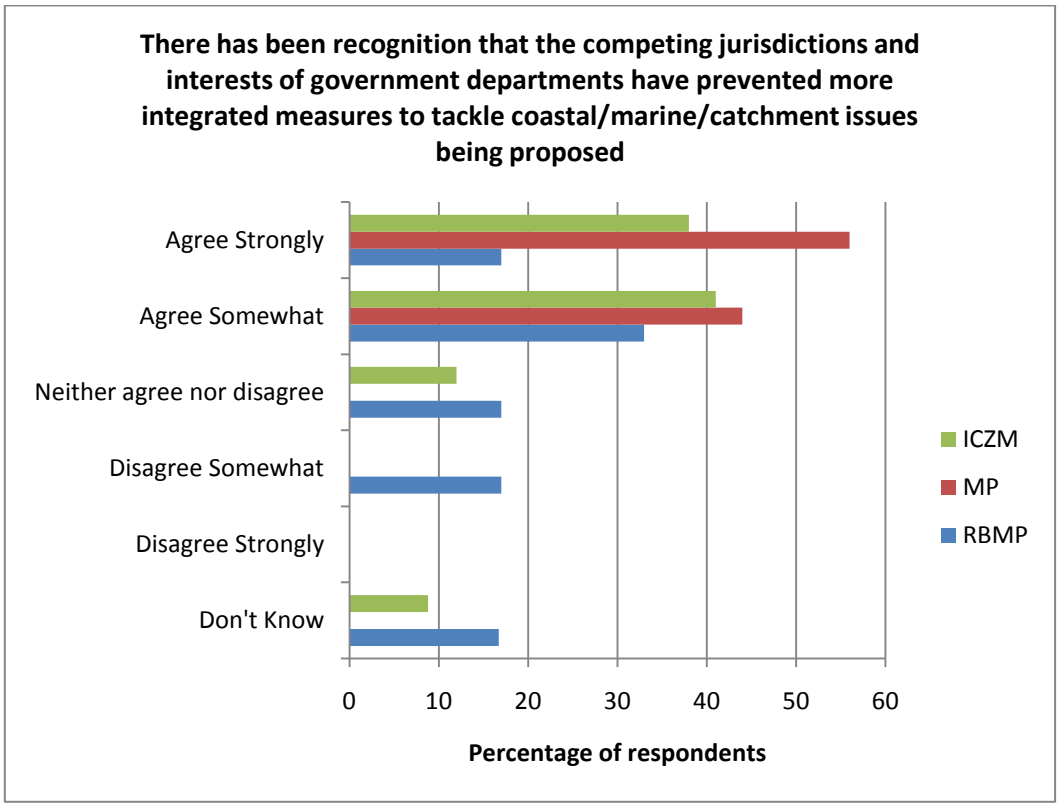
Figure 7.1: Questionnaire Response – Reaching a General Consensus



Source: Author

Looking broadly at the questionnaire responses, it can be seen that on the issue of achieving a general consensus, in Figure 7.1 there is a majority in agreement for MP, although a significant number also disagree, there are equal numbers agreeing and disagreeing for RBMP, and a much more varied range from "agree somewhat" to strong disagreement for ICZM.

Figure 7.2: Questionnaire Response – Competing Jurisdictions as a Barrier to Integration



Source: Author

On the statement regarding recognition that the competing jurisdictions and interests of government departments have prevented more integrated measures being proposed, there is a much higher level of agreement across all three regimes (see Figure 7.2).

As has been mentioned previously, the recognition of sectoral ways of working and the lack of integration and its role in the construction of problems is a major driver of change in coastal planning regimes and is most apparent in the case of MP, where there is quite a high level of respondents noting the way in which sectoral working practices have been a barrier to integration. Said one respondent:

> *"The marine area suffers from a sectoral response, and a plethora of regulatory controls and organisations – it is hoped that the Marine Bill will rectify this".*

And another:

> *"I got involved with marine policy things in the late 1980s, the sectoralised way of looking at the universe was pretty obvious then really... In a certain sense it's perfectly legitimate, there was a kind of pecking order, the nation's interest was served, that was the way business was*

done. The realities of sectoral problems have been around for as long as I've known anything about marine policy, so they must have been around for a great deal longer than that".

Recognition of the shortcomings of sectoral marine management therefore provides some grounds for consensus, and a foundation from which collaborative working can be built, however in this initial phase of coalescence there are still many underlying tensions between different sectors that will be affected by the Marine and Coastal Access Act, and is particularly the case with fisheries, as this is a far from homogenous group, including individuals engaged in recreational pursuits right through to large commercial fleets. One MP interviewee notes that fisheries are *"not a coherent set of interests".* Nevertheless, their stakeholder input remains crucial to consensus building.

At the simplest level, one questionnaire respondent stated on reaching a general consensus, that *"while there may be agreement on problems that does not extend to solutions"*. This view is shared by another MP interviewee, who states that:

"there's a strong consensus I think that there does need to be stronger management of the marine environment – exactly how that would happen or how that would be done is still subject to a variety of interpretations."

The situation for Marine Planning was also clouded by the lack of detail pertaining to the Marine Bill as it was at the time of interviews, with matters such as how MP would be implemented by the MMO and the actual boundaries of plan areas yet to be decided. However, the issue of options or potential solutions will be further examined later in this chapter.

For the Dee RBMP, where there are equal levels of agreement and disagreement on whether or not consensus has been reached, it is not the lack of integration that is considered to be the main problem but rather some *"sectional interests"* becoming aware of poor water quality through their own observations and monitoring, and acting without relating their own issues to a broader understanding of water quality. Thus:

"there's obvious water bodies where you just know – everyone knows there's a problem."

Where there is disagreement or a lack of consensus on RBM relates to two main aspects – firstly the way in which the existence of water quality problems are to a certain extent defined by the Environment Agency/UKTAG, and secondly due to the perspectives of *"sectional interests"* as to the causes of the problem. In the first instance, the work of the Environment Agency and Liaison Panels in developing the RBMP is based on the classification of water bodies by EA/UKTAG on a national basis, and as one Panel member states:

"I suppose the parameters are set, the Directive says we have to achieve this water status for water bodies whether they are modified or natural by timescale. You have to bear in mind that other European legislation exists that sets more stringent targets, which will prevail. So the agenda is set rather strictly."

As classification has been undertaken on a broad scale and without full information on all water bodies, one Panel member described the way in which large bodies of water such as rivers which have very different physical characteristics at different points along their entire length have been classified in a way that does not reflect localized issues. The classification of water bodies in this top-down way does not necessarily close down the debate, but the process appears to lack some transparency, and thus there is potential to create more dialogue in an attempt to discern the reasons why water bodies may have been classified in a particular way. One interviewee explained:

"It may be that where we've put it down as perhaps moderate or good status it could be that another organisation is aware of issues or problems within other parts of that water body and it's getting the understanding as to how and why we've given it that designation when they know there may be issues."

Therefore, as was suggested in the previous chapter, there is scope for stakeholders not only to learn from others through discussion on the way waters are classified, but to fill gaps in knowledge by integrating data contributed by other sources.

With regards to the issue of "sectional interests", one interviewee described the following situation:

"what you would have, I think, is probably a consensus view that there is a need to comply with the WFD... my guess is that people representing each sectional interest would probably be reasonably comfortable that everybody else's interests had been fully addressed, but not necessarily entirely convinced that their own had."

This demonstrates that there may be consensus on the broad nature of the problem and the need to address it, but at an individual stakeholder level there is the possibility that not all organisations feel that their concerns have been taken into consideration. "Sectional interests" are also a key part in recognising competing jurisdictions that have prevented integrated working, particularly at government level – one Liaison Panel member pointed out that post-privatisation, the division of utility companies into other companies with different functions has created some organisational complexity, whilst another stated:

"there are so many government departments involved. One is the Treasury, and the Treasury are

determined that whatever happens, nothing gets paid for out of general taxation. You then have the Environment Agency, which reports to DEFRA and WAG – it needs to find a solution which works best in terms of meeting the WFD requirements but doesn't upset the Treasury".

This comment also highlights resource concerns which are considered more closely in the structuring and implementation section later in this chapter, but what is apparent here is that competing objectives of government departments and agencies, plus the additional dimension of having to satisfy the requirements of governments on both sides of the English-Welsh border generates further difficulties in attempting to reach consensus.

In the case of ICZM, there is also a relatively significant level of disagreement on the issue of consensus, as there is in RBMP. Some of this is again due to sectional or sectoral perspectives on the nature of the problem, with landward and marine elements of the coast being considered separately in the construction of the coastal problem. Whilst there is recognition that some stakeholders with entirely opposing views will never come to agreement, one respondent noting that *"the principle of building consensus is irrefutable, that's what we're supposed to do. But there will be cases when you're just not going to get it, because the two or three parties involved are poles apart philosophically"*, what is more evident in the ICZM case studies are the tensions between consensus at a higher, strategic level and the need to address local issues. Particularly important in this respect is the issue of time, which is elaborated by one interviewee from DCF as:

"people in business are thinking this week, next week, the year for their profits, then you've got local people looking at maybe the next ten years because that's how long they've lived in that house, their children have grown up there. Then you get the academics who are looking at the longer term"

The issue of consensus at different scales is also highlighted by another DCF interviewee, who notes that:

"broad scale is much more easy to build consensus, local scale more difficult and resolving that is an issue of capacity, sharing ideas, sharing information, openly as well."

The views of DCF interviewees here may be seen in contrast however to the consensus building that has taken place at different scales in Scotland, as exemplified by the EGCP and the wider work of the Scottish government. At the local level, one EGCP member stated that consensus building *"must be reasonably easy, because we've never had a vote",* referring to the lack of dispute that has featured in the Partnership's activities. The Partnership as a vehicle for building consensus is also demonstrated through the EGCP's work on the Making the Most of the Coast report, which was seen

by one interviewee as important for flagging up areas where more work needs to be done to understand the nature of local problems and find solutions. Also of significance was the observation made by one interviewee that:

> *"if you get people round the table and get everybody to understand each other's point of view, it's difficult to have too big a fight, because everyone has the same needs and interest generally, you can pull them together".*

This statement therefore shows the value of an early discourse on the nature of the problem and an initial recognition of interdependence between stakeholders which is crucial for later stages of collaboration.

In addition, interviewees from EGCP noted that the work of the Scottish Coastal Forum, and the Scottish government's formation of the Advisory Group on Marine and Coastal Strategy (AGMACS) in 2005. This brought together approximately 25 different stakeholders including the Scottish Coastal Forum and "*invited them to say what the problems were in terms of their own understanding"*. This work has subsequently fed in to the Marine (Scotland) Act of 2009, specifically in the development of Scottish Marine Regions as a focus for coastal and marine policy, showing how a more bottom-up perspective can be brought to bear on national policy issues that has the potential to facilitate spatial and policy integration between local, regional and national levels.

Whilst there are signs of increasing integration between coastal actors in Scotland, the Severn Estuary Partnership represents an area where the problems of integration are particularly acute and recognised as a barrier to estuary-wide programmes of action. Said one interviewee:

> *"…the English-Welsh border, I suppose they're not competing but they are parallel jurisdictions. The slight variations make it difficult to bring together truly integrated measures, and just things like funding streams - DEFRA's recent Coastal Pathfinder funding stream, that's only for England, so if you wanted to take an integrated approach on the Estuary you can't do it".*

Another also explained:

> *"There aren't always comparable partners across the estuary if you like. Even within local government you've got unitary authorities in Wales, and a mixture of unitary authorities, counties and districts in England. So you haven't even got consistency in the organisational structures."*

This issue stems from devolution and, as one interviewee explained, "*Certainly as far as the Severn is concerned, and that's no disrespect to the Welsh Assembly Government, they're just a young*

democracy and they want to cover the whole of their patch". This is highly significant for the implementation of programmes, and may certainly cause problems if separate Marine Plans for Wales and England are to be produced, but can also be seen as an area where a consensus can be found on the need to integrate policies for both sides.

In discussing other issues of consensus for the SEP, some interviewees referred to an exercise undertaken as part of the work on producing the Severn Estuary Strategy, which was published in 2001. In order to identify priorities for the strategy from a wider list of issues, academics from University College London conducted workshops using a Stakeholder Decision Analysis technique (based on Multi-Criteria Analysis) to derive an agreed list. Whilst describing that *"the actual final list was not quite what everyone would expect, but everyone was happy with the process they'd gone through and some of the underlying values towards estuary resources were certainly built up on consensus",* it was also acknowledged that this prioritised list was later rejected in favour of another list, thus undermining the outcomes of a well received initiative.

7.2.2 Identification and Legitimacy of Stakeholders; Convenor

In Gray's propositions on the identification of stakeholders, sufficient numbers of stakeholders are required to reflect the complexity of the problem under consideration, and by extension to provide information that can assist in developing solutions.The questionnaire statement on stakeholder engagement generated a great deal of discussion in interviews, and quite a varied set of responses as is shown in Figure 7.3.

Figure 7.3: Questionnaire Response – Inclusion of Stakeholders

Source: Author

In the case of Marine Planning, there was quite a high level of agreement that all stakeholders had had the opportunity to participate in the development of the Marine Bill through a series of Stakeholder Workshops and in responding to the various consultation documents that DEFRA published in the run-up to the final Marine Bill, with one interviewee remarking that "*Everything has had a high profile and been widely consulted on, and everyone who wanted to get involved could have been*".

However, there was recognition that much of the discussion so far had been about process and high level strategy, and in this case the general public had not been fully engaged, partly because of people's relationship with the sea - one interviewee explaining that "*the public are considerably underrepresented when you move a mile, two miles, ten miles offshore... the public are not*

particularly well enfranchised in relation to marine affairs" and thus the main stakeholders that have been active in consultations are the private sector, government departments and NGOs.

The wider public's relationship with marine matters also accounted for some of the disagreement on whether or not the full range of stakeholders had been included for Marine Planning, and given that there will be further opportunities to participate in Marine Planning at regional level in the future, this point confirms Gray's proposition that stakeholder inclusion is unlikely to involve all stakeholders simultaneously, and the identification of "the public" or publics is a process of adaptation to local circumstances where more differentiated perspectives on marine problems and solutions may come into play.

However it was also noted that there are some groups of stakeholders that are particularly difficult to engage, those mainly being traditional, independent fisheries. This loose body of stakeholders was described by one interviewee as *"all very fragmented, and so it is probably impossible to accommodate all of their interests".*

For RBMP the disparate nature of stakeholders under one umbrella group was also considered a problem in terms of engagement, with fisheries again problematic – one interviewee citing the example that *"trout and salmon fishers have different views on the environmental conditions they favour for their respective activity"*, and thus one representative acting on behalf of a wider body may be insufficient to convey a series of views.

Similarly, the engagement of a limited number of private sector representatives on the Panel could not be considered to speak for both large and small enterprises and the diverse range of activities contained within those groups, but the makeup of the Panel was prescribed nationally (based on the guidance in the Environment Agency's *Water for Life and Livelihoods* document), and this required a more pragmatic approach to representation – as one interviewee explained, *"with the best will in the world it's an almost impossible task to ask that small group of panel members to make sure that everybody in their sector is covered and the message gets out"*.

One final point to note on identifying stakeholders in River Basin Management is that whilst there has been recognition of the need to improve sectoral representation, not all types of water body are represented on the Panel – although the WFD covers estuary waters out to 1 Nautical Mile, apart from the Environment Agency, there is no specific sea use representation. The inclusion of additional stakeholders was therefore not only seen to help make the planning process more democratic, but as was found in Chapter Six, and outlined in Gray's propositions on stakeholder identification, a bigger set of stakeholders can contribute further information on water bodies to assist in prioritising

planning measures, and thus there may be a need to widen Panel Membership to ensure full representation and better information.

The longer history of ICZM practice again has implications for the views expressed on the matter of stakeholder inclusion as it did in the previous statement on the proposal of partnership working. In the Severn and the Dorset cases the private sector was seen as a difficult stakeholder to engage, which may in part be due to the lack of economic incentives described in the social construction of coastal problems in Chapter Six, although there had been efforts to get them involved. One interviewee noted that

> *"it's very hard to bring the industry in and it's needed, a) because they bring a source of finance and also a different perspective because the public and private sector are very different beasts",*

although the establishment of the Dorset Marine Network, a forum for Maritime businesses was identified as a potential link in to the network of business stakeholders.

For the Severn, besides the lack of involvement from the private sector it was noted that there was under representation of local government, with some authorities described as *"drifting in and out",* which can be a sign of the stakeholder set naturally changing with the political context, however efforts were being made to attract those stakeholders to the Partnership. One interviewee noted:

> *"there's an attempt to get the councillors and people involved – the attempt to get some sort of democratic representation but I think the level of discussion internally within those local authorities is very weak,"*

Alluding to the fact that even though representatives may be engaged in the Partnership at an individual level, but can only provide a weak link to their own organisation in terms of reporting on the work of the Partnership – "*it's almost as if they go to the meetings, tick a box, they've done their business"* and thus such representatives are not able to fully develop the idea of interdependence and foster a culture of joint working between the Partnership and the organisation they represent.

The East Grampian Coastal Partnership appears to have fared somewhat better in its attempts to engage stakeholders, with one interviewee stating:

> *"I think we've been pretty successful – because there's so much input from stakeholders, and the public, at our first few meetings when we started off, we were getting 130-140 people coming to the AGM which was always run as a workshop, they could participate in the workshop so that they can help themselves and the next year's programme"*

As with all the other cases there are a few exceptions to this high level of engagement, with fisheries again being a difficult sector (because they are usually out at sea and unable to attend meetings, or in some cases they choose not to be involved because of differing perspectives), but the private sector has had a greater presence – apart from the oil and gas sectors, which *"have only just started to attend meetings"*, and in common with the remark made in Chapter Six about the lack of academic interest in coastal partnerships in Scotland, it was noted that *"academics are there on paper but not in reality"*.

Legitimacy among Stakeholders

In identifying stakeholders, Gray proposes that the perception of shared legitimacy is important to initiate problem setting, and that this perception is shaped by historical relations and power distribution between stakeholders. In asking about stakeholders in the questionnaire, no explicit reference was made to stakeholders having a perceived "right" to be included in a collaborative venture, however it can be inferred from interview responses across the board that in theory at least, there are no barriers to participation from the broadest number of stakeholders. Where stakeholder groups have been identified as missing from the planning process (such as the general public in RBMP and MP), this is not because of deliberate exclusion, but more likely because some groups feel that their own duties or functions do not require entering into collaboration (as is evidenced by the number of statutory bodies or private sector enterprise missing from ICZM), or the subject of discussion does not engage, being either too technical (in the case of RBMP) or strategic and disconnected from local issues (for Marine Planning).

In relation to this matter, the perceived legitimacy of stakeholders must also be taken into consideration in the search for a full set of stakeholders. Remarkably, this issue was only brought up by one of the interviewees, who stated that:

> *"I'm not even sure that individually we have the right to define who are stakeholders, that's biased."*

The same interviewee also raised the point that some partnerships do restrict membership, not permitting individuals to join unless they are affiliated to another organisation, and although this measure is primarily to reduce the risk of more vociferous individuals taking control of debates for narrow interests, it does highlight the fact that there appears to be little questioning within Partnerships of what "legitimate" stakeholders should be.

Convenor

One aspect of stakeholder involvement that must be referred to in terms of identifying participants is the role of the convenor or chair in bringing stakeholders into the collaboration. Apart from their perceived neutrality, convenors must possess knowledge of other stakeholders who may have an interest in the problem to be addressed or an ability to contribute to a solution. Like the issue of legitimacy, the role of convenor was not asked about explicitly in the questionnaire but did form one of the follow-up questions in relation to identifying stakeholders.

In the case of RBMP and Marine Planning as newer regimes, the Environment Agency and DEFRA serve as convenors respectively, and whilst it was noted that the discussions on the Marine Bill had provided opportunities for all stakeholders to become involved, the *"process led"* nature of RBMP and the lack of engagement signifies that as convenor, the Environment Agency is perhaps not making sufficient or innovative efforts to engage a broader audience. However, as the RBMP process is laid down nationally, this problem cannot be attributed to the Dee Liaison Panel.

In the coastal partnerships, the organizational structure allowed a division of functions between the partnership officers as convenors with the main responsibility for reaching out to stakeholders and the "chairman", as an individual who presided over meetings and can *"bring people together in a neutral environment",* or act as a central point of contact, as one partnership officer explained:

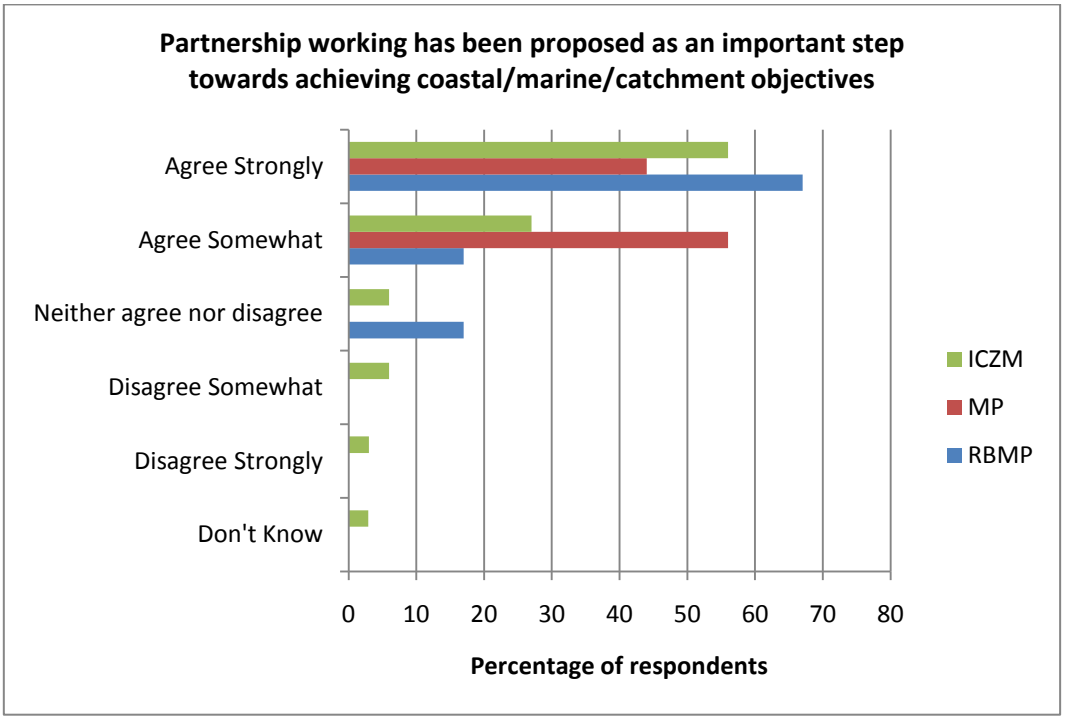
> *"it offers us horizontal and vertical integration – so he can deal with people on his level while I deal with the plebs, or he can deal with the people who are high up but don't know what's going on and I can deal with the people who are actually doing things on the ground."*

In addition, the legitimacy of the chairs in each of the partnerships was widely accepted, with no evidence of their position being contested – although it was pointed out by one interviewee that their organisation did not deal with "*any earth shattering decisions that matter, but if it did that [the appointment of the chair] would be the kind of thing that would be under scrutiny"*.

7.2.3 *Beliefs about Outcomes:* the Proposal of Partnership Working

Finally for the consensus building stage, stakeholders must possess beliefs that the benefits of collaboration will outweigh costs, and thus willingness to enter into joint working can indicate stakeholder's perceptions of positive benefits. This issue has been addressed through the questionnaire statement regarding the proposal of partnership working. On this statement of the questionnaire there was largely agreement across all three regimes, with a few exceptions in the case of ICZM, as is shown in Figure 7.4 below.

Figure 7.4: Questionnaire Response – Proposal of Partnership Working



Source: Author

For Marine Planning, as a relatively new concept that is still being developed at higher levels of government, DEFRA is noted as a driver for partnership working across government departments, although similar to the point made regarding the WFD and the interests of the Treasury preventing integrated working, one interviewee explaining that:

> *"The biggest difficulty is actually not I think with the users of marine environments, but the difficulty is actually bringing together government departments who are notoriously difficult to get to work together and understand each other's point of view and I think that's still an issue"*

This comment is supported by the views of another interviewee, who observes that the idea of partnership or collaborative working is not new to marine users;

"there is a lot of general collaboration, most industries have realised that they can't beat conservation interests so they've got to work with them, and sometimes that's begrudging cooperation, but a lot of the more mature industries get across that's just the price of doing business, and try and build relationships and do it smarter."

The first of these two comments shows that there are potential problems of achieving horizontal integration at central government level for Marine Planning – one questionnaire respondent providing the additional comment that *'Partnership' has been proposed, but only on limited and conditional terms understood by Government*, which could allude to the fact that the delivery of Marine Planning will be primarily through the MMO and thus partnership in the sense of marine planning functions does not imply a more equal relationship between government departments and executive agencies on the one hand and regional or local stakeholders on the other.

More positively, there is evidence at local levels that the idea of partnership working is already understood, which may be as a result of recognising the marine "problem" partially stems from a lack of integration between organisations, and this may have a greater influence in establishing interdependence and the positive benefits of collaboration.

Evidence from the RBMP case study also suggests that the proposal for partnership working is not entirely new, but whilst, as has been noted, there are definite issues with government departments working together, in contrast to Marine Planning the local level shows more varying degrees of enthusiasm for collaboration. Within bodies that already have a mandate to work together partnership working is widely accepted, and as one interviewee explained, *"the actual panel has worked well I think, bearing in mind that over fifty per cent of this area is in Wales. In Wales, because of the size of our country there's been a long history of folk working together... The philosophy is not strange from a professional dimension".* However, another interviewee stated more negatively that:

"I think the reality is that however much people want to work together, that practical ability to do so is constrained by the fact that so many of the stakeholders have conflicting objectives."

However as River Basin Management Plans require a high level of stakeholder input and coordination to achieve all of the actions set out in the Programme of Measures, one interviewee observed that the use of partnership working will have to increase, noting:

"there's a general understanding that in order to accomplish what is required under the WFD there will need to be a lot more partnership working, because it's not about the Environment Agency doing it all, it's about everybody doing their bit... Some sectors are very proactive with

partnership working, and there's others where it's a new thing to them, before this happened they weren't really involved, they just had their own remit"

The small professional community working within the Plan area may be able to facilitate collaboration through existing relationships, however the top-down requirements of the WFD meant that some stakeholders with "conflicting objectives" drawn into the RBM process without sufficient appreciation of interdependencies may undertake work to fulfill their own obligations in respect of the WFD, but could be unaware of potential synergies and shared resources that can be utilized to their own advantage through collaboration.

For ICZM, as would be expected, the concept of partnership working has had the longest time to become established and as such the majority of interviewees from the Severn, East Grampian and Dorset were able to provide a positive commentary on the use of partnership working for their respective organisations, with the Estuaries Initiative, Focus on Firths and to a lesser extent the production of Environment Agency Local Environment Action Plans (LEAPs) cited as early initiatives that have paved the way for current forms of partnership working – in this respect they set a precedent for partnership working that is absent from Marine Planning and RBMP.

In the Dorset Coast Forum, a *"fantastic track record of collaborative working"* was cited, which can be traced back to the work around the EU Demonstration Programme for ICZM, the campaign for the World Heritage Site and even earlier than that to the State of the Dorset Coast work undertaken in the 1980s.

To understand why some respondents to the ICZM questionnaire disagreed on the matter of partnership working being proposed, a point made by interviewees from both the Severn Estuary Partnership and EGCP may provide some answers. One EGCP interviewee explained:

"The whole concept of partnership as well is difficult to explain to some, sometimes – because people are used to thinking in silos and used to thinking for their own interests. So you have to do quite a bit of breaking down barriers in order to rebuild things, to try and get them to change their perspective"

This example helps to demonstrate how the positive benefits of entering into collaborative working must be clearly explained in order to gain the support of stakeholders. For the SEP, one interviewee stated that *"collaborative working is being used as a term a lot, particularly by the Partnership itself, and the secretariat of the Partnership mainly, but in fact it's not been that well articulated".* This collaborative working has taken the form of joint working projects such as CoastAtlantic (producing development guidance notes for the species and habitats of the Severn), the Severn Estuary Coastal

Group (for Shoreline Management Plans) and the European Marine Site, yet this work has been undertaken by a relatively limited set of stakeholders.

Noting the lack of a formal constitution for the Severn Estuary Partnership, the same interviewee also stated *"there should be the roles and responsibilities of the partners not just the secretariat, and I think that's been weakly developed, from that point of view as a Coastal Partnership we're probably less well developed than some of the others".* In this case, the need for terms of reference that defines the Partnership and its purpose may help to achieve buy-in from other stakeholders.

To summarise, the key points from this section on consensus building are:

- Within ICZM, MP and RBMP there are still disagreements about the nature of the problem and possible solutions stemming from the way problems are socially constructed, but there is a consensus about the lack of integration across government departments being a barrier to collaborative working in all three planning regimes.
- Difficulties in ensuring representation of a wide range of interests on River Basin Liaison Panels means that a full range of stakeholders has yet to be included in the River Basin planning process. Efforts to identify and include stakeholders for Marine Planning and ICZM are considered to be more successful, but there are still some stakeholders that are not fully engaged.
- Low levels of public engagement in RBMP and Marine Planning may be attributed to the technical or strategic nature of discussion, however there is scope for public engagement to increase and other stakeholders to come forward as the political context changes and moves on.
- The concept of partnership working is still relatively new in terms of marine and river basin management, however in ICZM where it is well established there are still problems in convincing some stakeholders of the benefits of collaboration.

7.3 Exploring Options

For this section of the policy cycle, the questionnaire and interviews explore how, once some level of consensus and interdependence has been established, stakeholders may begin to search for solutions to a common problem, through joint information searches, innovation (early attempts at policy design), negotiation and addressing issues of power between stakeholders. Table 7c below shows the propositions related to exploring options and Table 7d the questionnaire responses to those propositions.

Table 7c: Exploring Options - Propositions

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**
Policy Design	Direction setting may be influenced by previous iterations of the policy cycle and attempts at problem solving. Collaboration should facilitate discussion and appraisal of stakeholders' previous experiences in a learning process that assists joint information searches and direction setting.
Coincidence of values	*Direction-setting is greatly facilitated by coincidence in values among stakeholders. Joint information search by the stakeholders contributes to the emergence of coincident values and mutually agreeable directions for the domain.*
Dispersion of power	*Collaboration will be enhanced when power is dispersed among several rather than among just a few stakeholders. An equal power distribution is not necessary and may prove undesirable since it can provoke stalemate and inaction. However, a sufficient distribution of power is necessary to insure that all stakeholders can influence direction-setting.*

Source: Author

Table 7d: Questionnaire Responses for Exploring Options

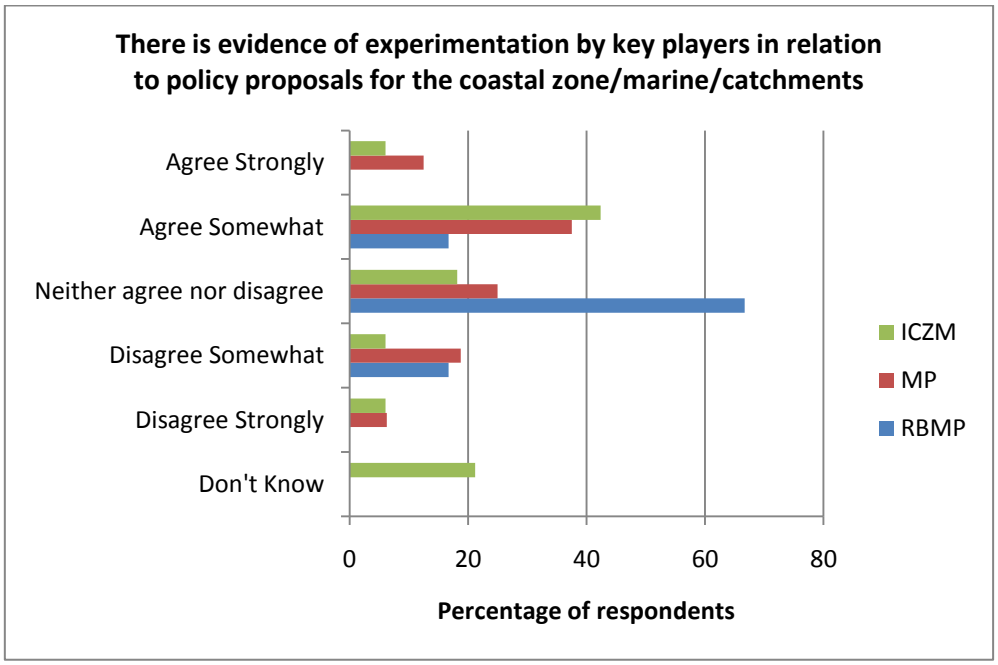
There is evidence of experimentation by key players in relation to policy proposals for the coastal zone/marine/river basins.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	2	14	6	2	2	7	7
MSP	2	6	4	3	1	0	1
RBMP	0	1	4	1	0	0	0
There is evidence of experimentation by key players in relation to new institutional arrangements for coastal zone management/marine planning/catchment planning.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	3	11	6	5	1	7	7
MSP	2	5	5	3	1	0	1
RBMP	0	2	3	1	0	0	0
The core goals of ICZM/MSP/RBMP have been built through bargaining between interested parties.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	2	14	9	3	3	1	8
MSP	0	7	2	3	3	2	2
RBMP	0	3	1	0	2	0	0
Joint working between actors at similar spatial/administrative scales is increasing.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	3	19	7	1	0	3	7
MSP	2	6	5	2	0	1	1
RBMP	1	2	2	0	0	1	0
There is recognition that the dispersal of powers between stakeholders is uneven and that those powers may have to be redirected to achieve change.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	4	15	5	4	1	4	7
MSP	4	4	2	3	1	2	1
RBMP	1	3	1	1	0	0	0

Source: Author

7.3.1 *Policy Design:* Experimentation in Relation to Policy Proposals and Institutional Arrangements

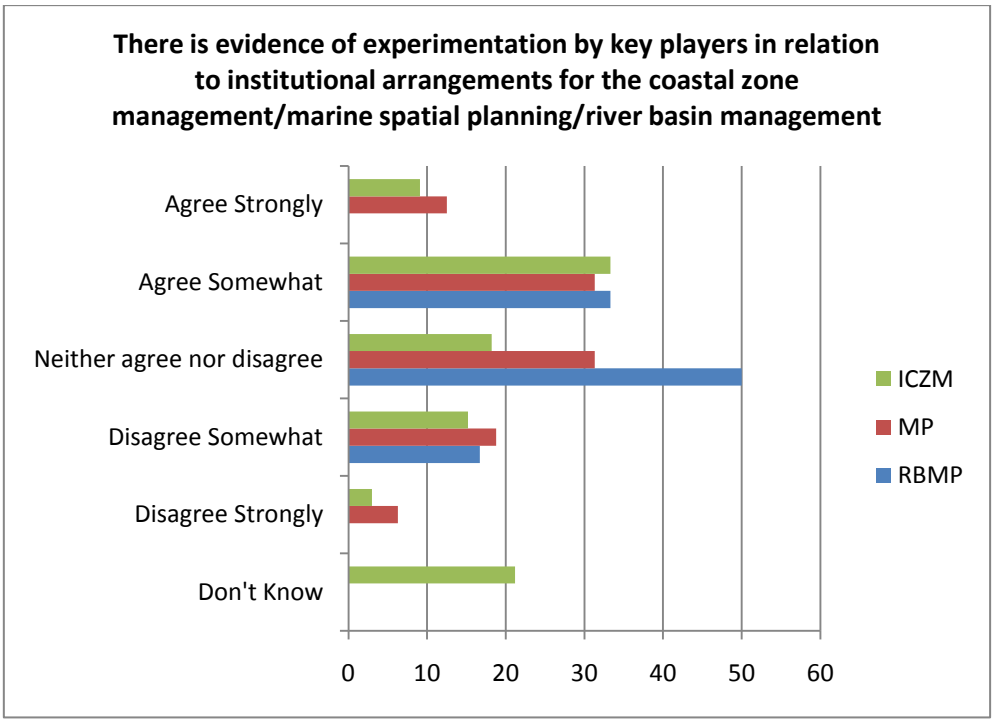
The questionnaire statements on evidence of experimentation in relation to policy proposals and institutional arrangements are reported together here as the two events are often linked together as part of the same initiative. The questionnaire responses for these two statements are shown in Figures 7.5 and 7.6.

Figure 7.5: Questionnaire Response – Policy Proposals



Source: Author

Figure 7.6: Questionnaire Response – Institutional Arrangements



Source: Author

Figure 7.5 shows that in relation to all three planning regimes, there is evidence of both agreement and disagreement over whether or not there has been experimentation regarding policy proposals, with the most uncertainty being displayed in the case of RBMP. This lack of certainty can be directly related to the top-down nature in which the WFD has been implemented and the way in which policies have been "imposed" on the Environment Agency, and this argument extends to the institutional arrangement of the Liaison Panel whose makeup was subject to national guidance, as discussed in Section 7.2 on consensus building. In trying to ascertain why the Panel had been set up in the particular form it currently takes, one interviewee explained:

> *"I think that was the decided method of doing it, because they [the Environment Agency] recognised that they needed a strategic, high level group of people who were in a position to make informed decisions and had enough clout, should we say, to actually make those decisions."*

Furthermore, the lack of evidence pertaining to experimentation on policy and institutional arrangements for RBMP can be attributed to the relative newness of the WFD itself – whilst the implementation of water quality Directives is not new, the WFD represents a different, more inclusionary approach to water management that does not simply rely on technical solutions. Therefore, apart from an EA pilot project on remediating metal mine waters, and one interviewees' citation of the United Utilities Sustainable Catchment Management Programme (SCaMP) initiative, which is a limited scale project undertaken on its own lands, the process of River Basin Management has not been built on a foundation of previous experience and with little "buy-in" from stakeholders on the ground.

For Marine Planning Figures 7.5 and 7.6 show a more clear agreement (but still some disagreement) on the evidence for policy and institutional experiments. Again, the newness of the approach is a limiting factor in terms of the breadth of prior experiences, and indeed one interviewee remarked that

> *"I don't think we've had any experimentation, I think we've tended to have surveys of what goes on elsewhere, and very little. There's very little comes out of that as there's very little planning goes on in the marine environment"*

However where there was clear agreement the experiences cited were not all marine examples – in one instance an interviewee referred to ICZM activities as a precursor to the Marine Bill, but also acknowledged that there was a large transfer of terrestrial planning ideas to the way in which marine planning was to be organised:

"most of the things that people raised about the planning process had been done ad nauseam in the terrestrial context, and basically are complete non-issues. We took most of that on board, simply because there are regional spatial plans, people are used to doing that sort of thing, they're used to doing participation, in relation to that used to reporting on it, used to the process of it, and so it's not a problem."

The expectation that the Marine Planning process could be adapted from the terrestrial planning system represents a case where experimentation, learning and the subsequent legitimisation of terrestrial planning approaches brings a ready-made degree of consensus into the discussion of options for the marine system.

In relation to institutional arrangements, another interviewee noted that:

"I don't think there are many precedents for the marine planning that's been proposed in the UK or for the MMO – I think there are examples of organisations and processes around the world which give us some idea of how things might work, but I still think that what's planned in the UK is rather at the forefront of practice".

Talking more specifically about the discussion of proposed institutional arrangements and the MMO, the same interviewee also observed:

"I think we'll get what we get. On the other hand I think much of that has arisen as a result of a consensual debate rather than a formal consideration of options and some real tensions in terms of how they might operate."

And therefore this statement indicates to some extent that despite the lack of precedent for the Marine Planning structures being proposed, with consensus and shared beliefs about outcomes, stakeholders are willing to engage in Marine Planning as *"an act of faith"*.

The lack of experimentation in RBMP and Marine Planning is in contrast to what is reported for ICZM, where many more examples of "experiments" were cited, although these were on a quite small scale. One interesting feature of the ICZM cases examined is that in terms of institutional arrangements, the overall structure for each of the Partnerships has remained the same, in being composed of a core staff, steering, advisory or working groups and the host organisation.

The activities of the Dorset Coast Forum which were provided as examples of experiments included DEFRA's Rural Pathfinder scheme, with DCF undertaking scenario planning for a number of coastal issues, including tidal stream technology, sea level rise and flooding, and as a consequence one interviewee noted that *"we also replicated the methodology for that for other projects that we're*

still doing, so we've got a way of doing it that makes it easy, it's worked". Also, the C-SCoPE project for marine planning currently being undertaken by DCF is hoped to provide an exemplar or model for marine planning at local level.

For the Severn Estuary Partnership, one interviewee explained that with regards to institutional arrangements, *"trying to institutionalise ourselves to create a more formal partnership has been thwarted – I think there have been a lot of good ideas, particularly institutional arrangements, but they've been thwarted by legal departments"* and thus experimentation has been through other collaborative projects such as Corepoint (COastal REsearch and Policy INTegration) one of the outputs of which was a series of ICZM training workshops for potential partners, which *"helped engage with certain individuals in local authorities, and some of those have kept going"*, and ASERA, the Association of Severn Estuary Relevant Authorities, which was formed to assist local authorities in discharging their responsibilities for the designated conservation areas of the Severn, including and SPA, SAC and Ramsar site and has resulted in the production of a joint management scheme.

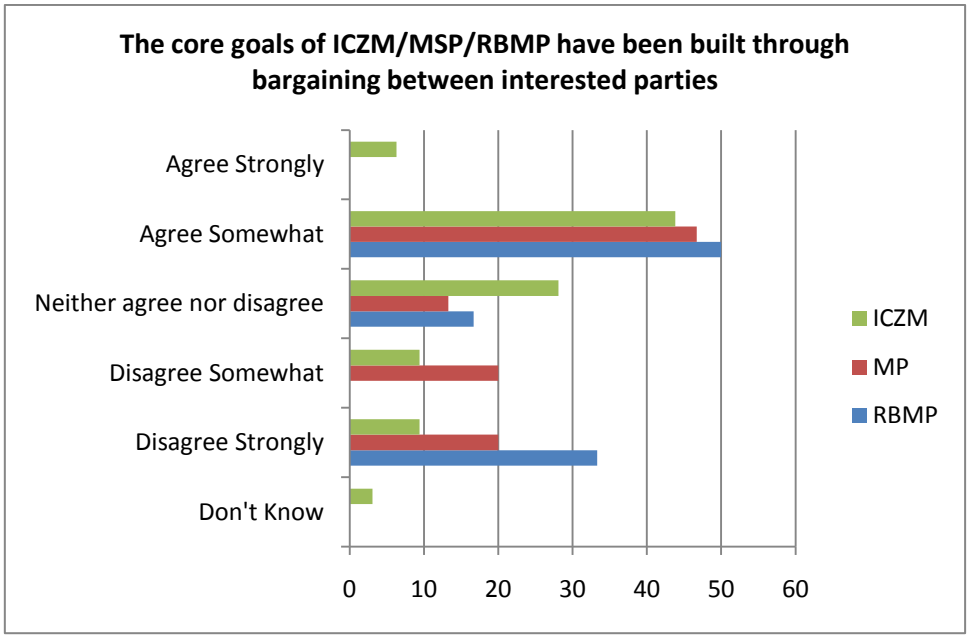
In the East Grampian Coastal Partnership, as the newest of the ICZM case studies, there were no real examples of experimentation in either policy or institutional arrangements, however it was pointed out that in the establishment of the Partnership, the feasibility study undertaken recommended starting the Partnership on a voluntary basis and then moving to become a registered charity limited by public guarantee, like the Moray Firth Partnership, the benefits of this being "*Stability and opportunities for funding".* However, the Marine Bill (for Scotland) was said to be *"holding back any changes to organisation".* Nevertheless, at a more strategic level within Scotland, the example of the Sustainable Scottish Marine Environment Initiative (SSMEI) was cited as a series of experiments in making marine plans that will have implications for the coastal and marine policies that coastal partnerships are expected to deliver in the future.

Whilst the greatest scope for experimentation in relation to policy and institutional arrangements can be found in the bottom-up approach of ICZM, the short-term nature of many ICZM projects such as DCF's Rural Pathfinder or SEP's Corepoint work, lack of resources, including staff and the "loss of corporate memory" referred to by McGlashan (2002) in Chapter One, shows that even with an appreciation of interdependence, access to stakeholders with more resources and more power is needed to ensure that there is a continuity of successful initiatives and that knowledge accrued through policy learning is not lost.

7.3.2 *Coincident Values:* Core Goals and Joint Working

The use of bargaining and negotiation to build core goals or set a direction for collaborative working provided a more noticeable level of disagreement in each of the case studies as is demonstrated in the questionnaire results shown in Figure 7.7. This disagreement was most apparent in interviews undertaken for the Dee RBMP and the MSP Pilot.

Figure 7.7: Questionnaire Response: Core Goals and Bargaining



Source: Author

In discussing negotiations for direction setting on the WFD, some reference must be made to the international level - one interviewee noted that the priorities and for individual Member States were different, and therefore some negotiation must have taken place internationally in order for this to be possible. However at its most acute, the level of disagreement between interviewees for the RBMP case study is illustrated by one individual who stated quite bluntly that *"there is no bargaining at all on river basin liaison panels"*, which may be a reference to the element of compulsion involved in implementing the WFD, and another who observed that:

> *"There isn't much leeway for consensus - in the short term resources are limited and what do we tackle first? That's the debate we have most importantly with the Assembly, because that's where the money in Wales comes from."*

At the more positive end of the spectrum, one interviewee described a considerable amount of negotiation and bargaining between the Environment Agency and conservation groups who *"want*

more ambition in the plan". However this appears to have been without the participation of other stakeholders, and may be seen to demonstrate that one particular set of values or pressures have been brought to bear on a limited set of negotiations.

A final point related to the perceived lack of bargaining in the RBMP process is related to the issues raised in Chapter Six regarding the construction of a catchment problem, and the low level of understanding in how this had been achieved, with one interviewee noting that a lot of the current measures in the first plan cycle were *"investigatory stuff – projects to find out more about the problem".* This shows that decision making is proceeding on the basis of limited information, which may be a barrier to engaging a full set of stakeholders in decision making, but also raised the possibility there was still a great deal of scope for future negotiations as more information can be presented to stakeholders.

In the marine planning case study interviewees were able to provide slightly more evidence that direction setting had been achieved through bargaining, with one interviewee noting that:

> *"It has been a bargaining process, not just locally but nationally and internationally of course. We are now in the process of a national marine strategy and a marine policy statement should be emerging which ought to set those goals"*

Here the international dimension referred to flags up the issue of devolution and the different ways in which Marine Planning will be administered, although at this time work on a draft Marine Policy Statement for all the devolved administrations was at an early stage and the process of bargaining in some respects may therefore be said to be incomplete.

Where there was disagreement about the use of bargaining to determine the goals of Marine Planning, in one interviewee's perspective this was down to the fact that "*Until we start to define the areas on the ground which can be used for certain things or not, then we won't have any core goals coming out".* However this perspective was challenged by another interviewee, who noted that the absence of bargaining was because:

> *"...consensus emerged through the marine planning pilot about what MSP could do and what it should be trying to do."*

Suggesting that the proposed mechanism of marine planning was, to a certain extent, more easily agreed upon, but that the overall purpose of the system was still the subject of ongoing contestation and negotiation between stakeholders.

The voluntary nature of coastal partnerships and lack of statutory functions meant that there were some different issues involved when it came to bargaining and negotiation in ICZM, with one interviewee from the SEP describing their core goals as *"quite loose"* and that there has been a lack of dialogue on goals and priorities because *"it's all fairly vague stuff that doesn't really matter that one's higher than the other on a list of programmes"*. At the same time it was acknowledged that there had been negotiation on some of the smaller projects undertaken by the SEP with respect to nature conservation issues and trying to reach agreement with statutory agencies, but there had been a lack of broader engagement since the production of the SEP Strategy, where the Multi-Criteria Analysis exercise carried out by UCL had helped to identify priorities on a consensual basis, and this lack of engagement was a problem that needed to be addressed.

For both DCF and EGCP, a number of interviewees stated that their respective coastal partnerships had only had a small experience of bargaining themselves, but had a greater role in facilitating bargaining between other stakeholders. For EGCP this had been done on occasion through acting as an independent information broker to allow other parties to come to decisions based on the information presented, describing how on one local issue concerning a bridge over some coastal waters:

> *"We did an engineering report and an environmental report which we sponsored, and then we presented it to Aberdeenshire Council and the Community Council, we presented it to a local nature reserve, and chaired the meeting to let them discuss it".*

Similarly for the DCF, the facilitating role in decision making was noted in that:

> *"because local CPs know their people, they know both sides of the story, or even more than both sides because sometimes there are more than two issues there at once, I think that as long as the coastal partnership is seen as independent and has no personal objectives one way or the other, I think that it's a very good way of achieving that."*

However in this instance the issue at stake itself would determine the length of negotiations, which often required building up trust with stakeholders over a long period of time, and what sort of compromise might be required.

There is a danger within coastal partnerships that some goals are easily negotiated because they are broad *"motherhood and apple pie"* type objectives that are difficult to oppose, but avoid addressing more fundamental tensions between stakeholders, and thus where coastal partnerships act as facilitators between stakeholders, remaining neutral but participating in a joint information search

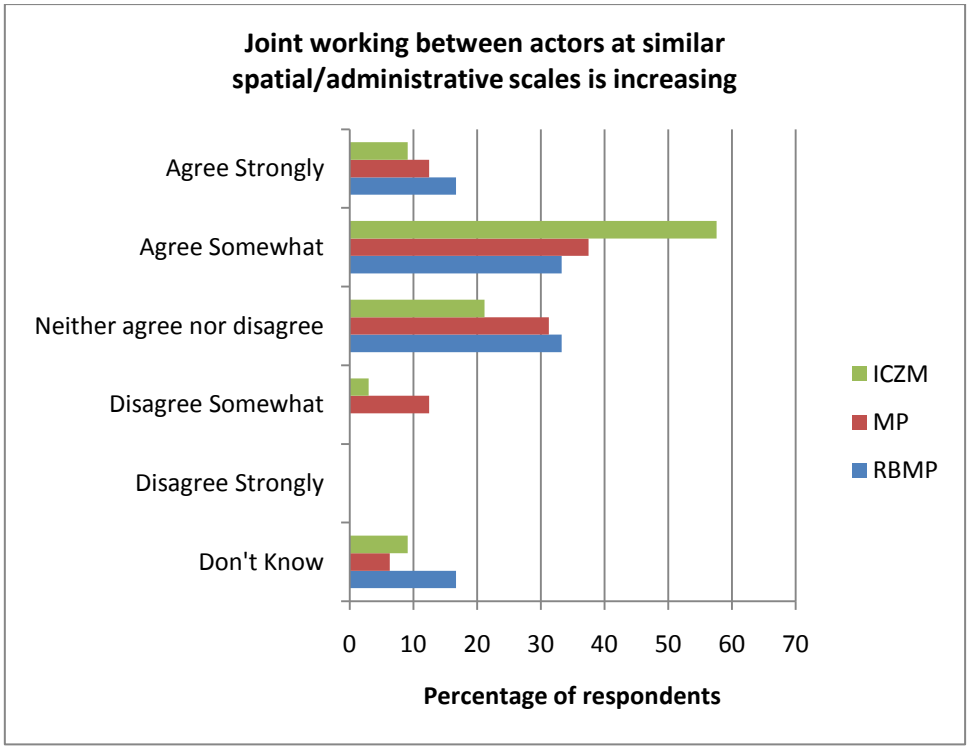
and discussions, this ultimately helps to bring about greater awareness between stakeholders of other perspectives and common ground.

Increased Use of Joint Working

For this statement on joint working, evidence was sought on the way in which stakeholders may begin to share coincident values through working together on joint initiatives, and thus the questionnaire responses (shown in Figure 7.8) and interview data showed a relatively straightforward pattern of agreement.

For ICZM the use of joint working is already an established way of working, and thus interviewees spoke only of successful examples, such as sea bed mapping for the Dorset Coast in association with the Wildlife Trust, and consultation on the new Marine Conservation Zone for the South West. In the EGCP Operation Dune Watch was considered to be a highly successful joint working project with the local police force to prevent quad biking on sand dunes and find a new, more suitable location for such activities to take place.

Figure 7.8: Questionnaire Response – Increased Use of Joint Working



Source: Author

For Marine Planning, one interviewee observed that:

> *"One of the trends that I've detected is that while we still don't have a system of MSP, lots of people are going off talking about it, doing it – Dorset Coast Forum have got their big slice of European money, Solent is starting to do a little bit…"*

This demonstrates that whilst at the strategic level, and particularly at the time of the interview, there may have been some hesitation and acquiescence over initiating new joint ventures, and a top-down style of implementation might still ultimately dictate the process of final decision making. At more local levels stakeholders were already beginning to build capacity for joint work on marine planning. The voluntary nature of this work was also noted, with one interviewee stating that increased joint working was *"Not really through any statutory processes".*

For RBMP, like Marine Planning, the use of joint working is still a new concept for many of the stakeholders involved in delivering the WFD measures, and may come through an element of compulsion from higher levels of government. The resource dimension of joint activities was cited as something that can be a weakness or an opportunity, with one interviewee observing:

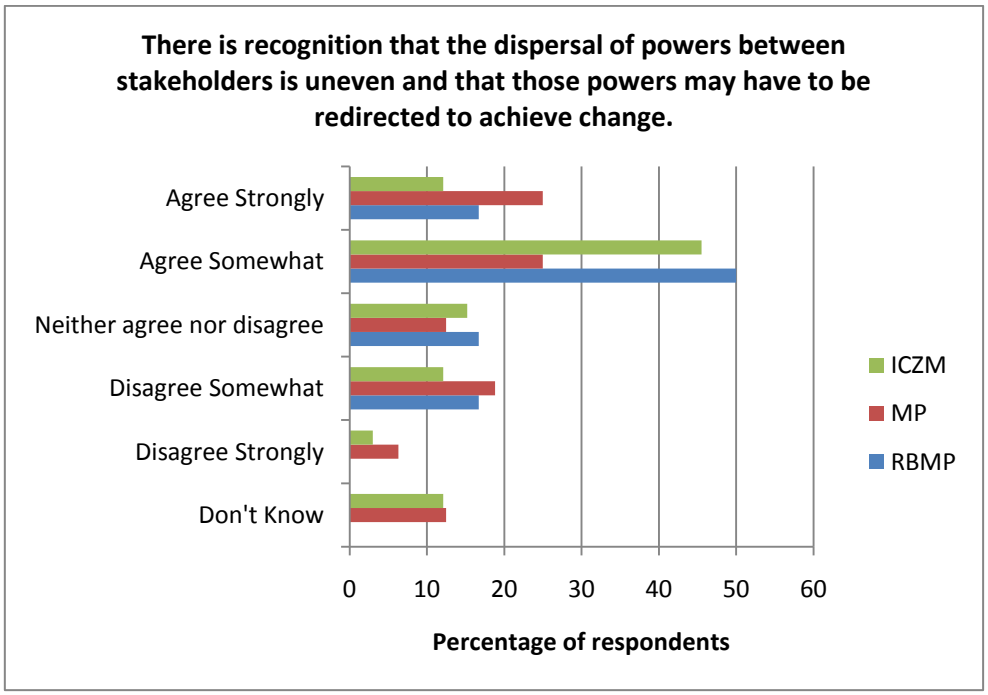
> *"It's determined in some respects by whether there is any funding to do it, because if you're going to work together it's either got to be your day job that you're resourced to do anyway or you'd have to find funding from somewhere else"*

From this it can be inferred that without incentives, there are still many problems to overcome in terms of integrating stakeholders through a collaborative process. Besides these comments, no concrete examples of joint working outside the statutory Planning process for RBMP were cited, other than the need for more stakeholders to come forward and contribute to the Programme of Measures, showing that there is still a large gap in this instance in engaging stakeholders with coincident values.

7.3.3 Dispersal of Powers between Stakeholders

Whilst this is the only statement in the questionnaire to refer explicitly to the distribution of power between stakeholders, many of the conclusions that can be drawn from analysing the questionnaire and interview data have already been expressed in relation to other statements that have been discussed. These conclusions come in relation to the top-down and bottom-up nature of the different regimes, although the questionnaire responses shown in Figure 7.9 show a relatively even spread of agreement and disagreement across all three regimes.

Figure 7.9: Questionnaire Response – the Uneven Dispersal of Powers



Source: Author

Within the RBMP and Marine case studies, there was much greater recognition that the dispersal of power was uneven, with one Panel member from the RBMP case study acknowledging that the Environment Agency, as the competent authority for delivering WFD has ultimate control over what is done. This confirms what has already been assumed about the top-down nature of the WFD, and according to Gray's proposition, this concentration of power is not conducive to collaboration. However there was scope for some powers to be redirected through other stakeholders exercising their own power, as one stated:

> *"it's up to each sector to ensure that they contribute and therefore they have got power in that respect"*

Whilst this imbalance of power could be seen as negative, another stakeholder made the point that

"the trouble with the WFD, the really big things that need doing, need national resources and leadership. Agri-environmental matters, bathing water issues, flood policy issues, are things which the voluntary sector are not going to get – can't get involved with because it's so huge."

Thus it is recognised that many potential stakeholders are not sufficiently engaged and therefore not empowered in any way to contribute to meeting WFD objectives, but that the dispersal of power may not necessarily be helpful, because strong leadership and a wealth of resources are needed. This supports the idea that the dispersal of powers is not always desirable, but the question of ensuring equal access to power and achieving buy-in from stakeholders with regards to RBMP remains only partially addressed.

For the marine case as well the uneven nature of power dispersal between stakeholders was recognised, with one questionnaire respondent adding the comment that in relation to the Marine Bill proposals *"the deckchairs may have been moved but key powerful stakeholders (oil and gas, Crown Estate etc) have retained their powers almost undiminished or even reinforced",* yet there was some disagreement as to whether such powerful stakeholders from the private sector would have undue influence – with one interviewee pointing out

"My view is that I don't generally see industry getting its own way because it shouts loudest and has the most money. I'm more intent to see industry humbled by the Habitats regulations and having to do what they're told and jump as high as they're told"

There was also recognition within the marine case that with the Marine Bill being at an early stage in its development, powers may come to be redirected as implementation progresses and the political context changes – this point being illustrated by an interviewee who proposed that:

"What will become evident as things go on is the relative power of the participating bodies and the effectiveness of their lobbies and that's going to change... but this is no different from any discussion about sustainability where effectively the ground rules of sustainability will change with the political circumstances"

This raises the possibility that through the MMO and the roll-out of the Marine Planning system, more stakeholders may become empowered or enabled to carry out certain functions. Although as with RBMP, the marine case study could provide no concrete answers as to whether power should be redirected, and if so how – one interviewee remarking that *"it's definitely not even, but I'm not sure how you can try and rectify that – I think you just have to try and be as rounded and inclusive as possible".*

Inclusivity is one of the ways in which the issue of power was addressed by coastal partnerships, with interviewees from the ICZM case studies acknowledging that although there are some stakeholders that are naturally bigger or hold more powers than others, the structure of the organisations meant that in most circumstances coastal partnerships were relatively successful in maintaining an appropriate balance of powers - no one stakeholder was seen to be wielding more power than the others. For the East Grampian Coastal Partnership one interviewee noted that *"as stakeholders have remained constant everyone has come to understand each other – power is not an issue"*, and this opinion was supported by another interviewee who stated that *"I don't think any one organisation has undue influence"*.

For the Dorset Coast Forum, a similar story applied – it was noted that within Forum meetings, *"people can actually say what they think and feel and that allows good business to get done because of it"*, and on the issue of the core funding bodies and any potential influence they might have on direction setting, one interviewee noted that:

> *"the fact that it was only certain organisation that did buy in didn't mean you would push their values more than anyone else's - they realised it was all for the common good"*

Thus demonstrating that the core funders, whilst not conceding power, understand that they are equal partners in a collaborative process that has far reaching, positive benefits.

In the Severn estuary, the complexity of responsibilities has brought about some more differing perspectives on the issue of power. Whilst in the production of the Severn Estuary Strategy, *"there was an attempt to provide a level playing field and I think the process we actually went through did work quite well, people did feel like equal partners"* it was noted that there were particular difficulties in trying to get bodies with statutory powers fully engaged with the Partnership because, and particularly in one case, *"they probably see the SEP as being powerless in the context of all these statutory responsibilities".*

Rather than the problem of having overly powerful stakeholders at the table, therefore, the SEP demonstrates that there may be an unwillingness on the part of some stakeholders to engage with those less powerful. As one interviewee described on a coastal access project:

> *"it took a lot of negotiation and watering down of the original proposals to get the bodies with the powers to come to the table".*

However, it was also observed that *"we have opened a few doors to get those with power working with those who in a statutory sense have less power and responsibility"*, and thus the work of the

Partnership in bringing together different stakeholders may be showing signs that the perception of uneven powers may be overcome though collaborative working.

A final point to note on the dispersal of power and ICZM is that access to power in the form of organisations with more formal or statutory duties can be equated with access to resources that are crucial for the day to day functioning of coastal partnerships. However, the examples of EGCP and DCF in particular show that by building up shared beliefs about the benefits of collaborative working, relationships between stakeholders of uneven powers can be sustained.

To summarise this section of exploring options, the key points are:

- Where there has been experimentation in relation to both policy proposals and institutional arrangements, this has been relatively limited in terms of the number of "experiments" (for Marine Planning and RBMP) or in the scale of the initiative (for ICZM), therefore providing fewer opportunities for learning from experience.
- There has been a lack of negotiation and bargaining on core goals for RBMP, and thus coincident values are not apparent, with some stakeholders feeling that their individual concerns and interests have not been addressed. Less negotiation has been required for Marine Planning and ICZM because consensus has been built, but some issues can still be contentious.
- Whilst the concept of joint working is well established for ICZM, showing greater awareness and development of coincident values, there are only limited but increasing examples of collaboration for Marine Planning and RBMP.
- The uneven dispersal of power between stakeholders is perceived to be greater in Marine Planning and RBMP than it is in ICZM, where efforts have been made to create a setting in which stakeholders are treated equally.

7.4 Decision Making

The decision making phase of the collaborative policy making cycle encompasses ideas about the process by which direction setting efforts are crystallized in the production of policies, strategies or plans, and thus considers collaborative conditions such as bargaining, windows of opportunity that may push particular options further up the agenda, and the building of structures that facilitate ongoing collaboration and implementation of decisions. Table 7e shows the propositions related to this stage of the collaborative policy cycle, and Table 7f the questionnaire responses to these propositions.

Table 7e: Decision Making - Propositions

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**
Degree of ongoing interdependence	*Structuring will occur when stakeholders perceive that continued dependence upon each other is necessary to implement their desired directions for the domain.*
External mandates/political context	*Mandate alone will not generate conditions conducive to collaboration. However, coupled with other conditions (e.g. recognition of interdependence and balance of power), mandate can provide a structural framework for ongoing regulation of the domain.*

Source: Author

Table 7f: Questionnaire Responses for Decision Making

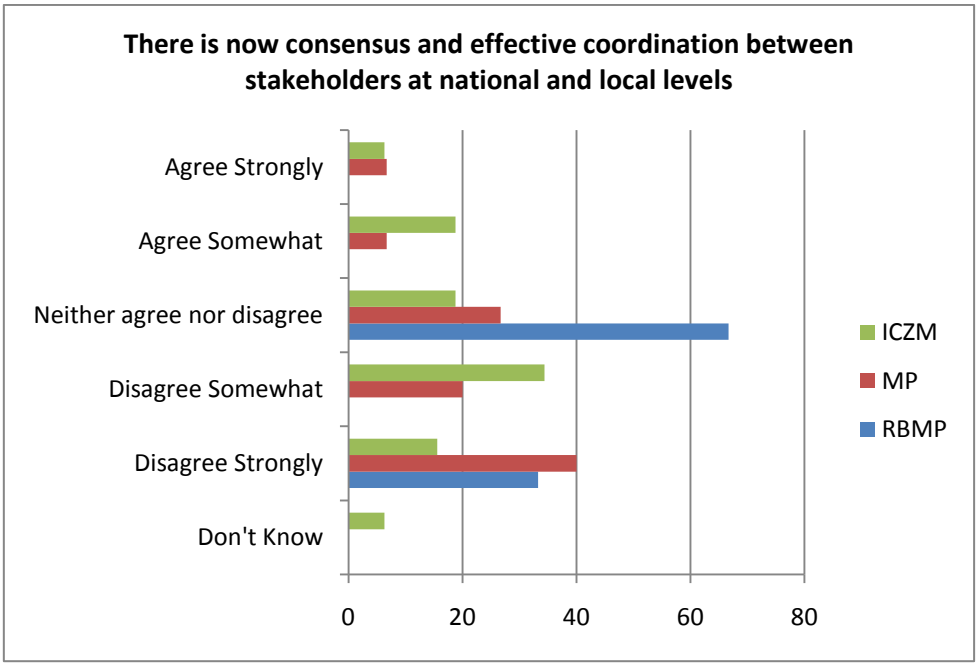
There is now consensus and effective coordination between stakeholders at national and local levels.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	2	6	6	11	5	2	8
MSP	1	1	4	3	6	0	2
RBMP	0	0	4	0	2	0	0
There are now clear national public sector sponsors who are taking a lead in forwarding action on coastal/marine/catchment management/planning initiatives.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	2	23	1	2	0	4	8
MSP	5	4	3	2	0	1	2
RBMP	1	3	1	1	0	0	0
The emergence of a lead organisation or organisations has been legitimised by negotiation between stakeholders.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	0	9	12	2	5	4	8
MSP	1	4	2	4	3	1	2
RBMP	0	2	0	4	0	0	0
There have been clear "windows of opportunity" or events enabling coastal/marine/catchment policies to be placed in the legislative programme.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	5	17	4	3	1	2	8
MSP	1	7	1	3	2	1	2
RBMP	0	3	2	1	0	0	0

Source: Author

7.4.1 *Ongoing Interdependence:* Consensus and Coordination between Stakeholders

As the decision making phase of policy making begins to produce some more tangible structures for collaborative working, it is expected that this will be reflected in an increased level of consensus and coordination, which can signify increasing horizontal and vertical integration between stakeholders. Figure 7.10 below shows that for RBMP, this consensus and coordination has quite clearly not occurred, whilst for Marine Planning and ICZM there are some quite different perceptions about the level of consensus and coordination.

Figure 7.10: Questionnaire Response – Consensus and Coordination



Source: Author

For Marine Planning, the main points of agreement related to consensus and coordination at the national level, with one interviewee observing that:

> *"there's now UK high level objectives, there'll be a UK Marine Policy Statement, probably with a few regional emphases, which is good, and UK monitoring is going to be dealt with at a UK level as well, so there are reasonable levels of cooperation at a high level"*

It was also noted that groups such as Wildlife Link and the Seabed Users Development Group, convened by the Crown Estate had worked together to produce a joint position statement in the early stages of the Marine Bill. However, possible tensions between the devolved administrations on Marine Planning provided one instance of where horizontal integration could be weak, with one interviewee stating:

> *"I am slightly worried that we have this division of UK waters as a result of the devolved administrations having responsibility for different parts. I think there is potential there for some rather difficult negotiations in the long term and potentially some unravelling of quite an important concept which is that there should be fairly consistent policy."*

In terms of vertical integration, the absence of regional or local level stakeholders was also cited as a reason for disagreeing with the questionnaire statement, with interviewees referring to local authorities *"just going to be one of the stakeholders that are involved in the marine planning*

process" in regional marine plans, although whilst still in the consultation stages of the Marine Bill, another interviewee made the point that *"it needs the spatial planning system to come into place"* before the true extent of consensus and coordination can be fully discerned.

Similarly, for RBMP, the lack of coordination was seen to be the main reason for questionnaire respondents disagreeing strongly, with one interviewee noting *"the lack of local authority involvement"*. This view was supported by another interviewee who explained how the problem of local authority involvement was being addressed:

> *"I think they are starting to get on board with it now because WAG wrote a letter for chief planning officers to say you really need to sit up and take notice, because this is going to affect your job, this is your day job".*

Thus there are some signs of improvement, but as one interviewee noted, *"Whether there's a general consensus and whether it is truly effective coordination, only time will tell. I think it'll happen eventually"*, showing that whilst at this early stage of plan implementation, the benefits of collaboration have not been made clearly enough to engage even stakeholders with a major role to play in delivering WFD objectives. This has implications both for delivering plans to schedule, if stakeholders are slow on the uptake, but also can be a barrier to further collaboration because issues of building a shared consensus and trust have not been resolved.

In the coastal partnerships, where there have been more opportunities for building consensus and coordination, there were still relatively high levels of disagreement. At the local level, whilst there is some coordination and consensus, it was observed that *"where there's local issues there is more conflict"* and the potential for small but vociferous interests to upset the balance of consensus. In some instances the issue of representatives sent from partner organisations was observed as something which could have impacts both horizontally and vertically, as one interviewee from the Severn Estuary Partnership described:

> *"...because it's a non-statutory function you get someone generally fairly low to mid ranking, with one or two exceptions to get engaged. There's a huge turnover then, and they can't embed from the bottom up the structures are needed"*

This comment therefore shows how, even if some level of coordination can be achieved, this can be quite fragile, and without continuity in key individuals, consensus and coordination can be easily lost. Such problems require a twin-track solution to be overcome – in the short term, additional funding may help to maintain human resources and "corporate memory", and in turn this may assist in bringing about a long term strategic change in stakeholders perceptions, not only of collaboration

as a way of working, but also in taking ICZM as a fundamental approach to managing their coastal interests.

7.4.2 *External Mandates:* Public Sector Sponsors and Legitimacy of Lead Organisation

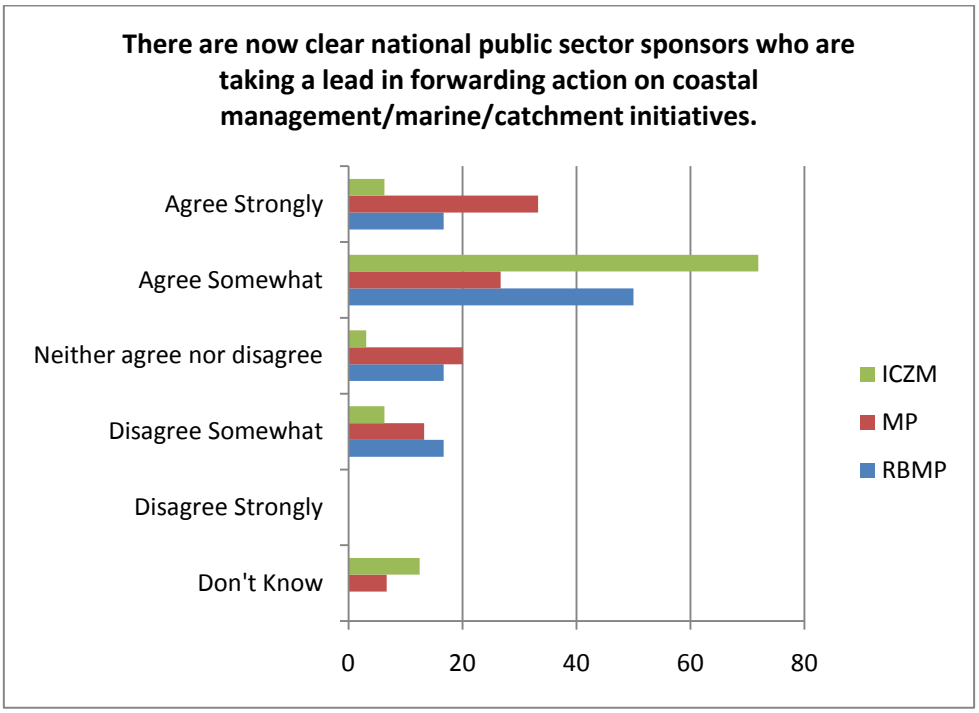
In considering the emergence of public sector sponsors and the legitimacy of lead organisations, it is acknowledged that for policies to be implemented there must, in most cases, be some kind of government intervention, and thus the statements on the questionnaire relating to these two separate issues are closely linked. Taken together, Figures 7.11 and 7.12 show that whilst there is agreement on the existence of public sector sponsors, there is more disagreement over the legitimacy of lead organisations.

For Marine Planning, one interviewee stated on public sponsors that *"I don't think they're very clear"* and that perhaps NGOs were the main sponsors, whilst the lack of engagement from local planning authorities was also noted, however there was wide agreement from other interviewees that DEFRA was the one clear public sector sponsor. In terms of DEFRA being the lead organisation (and creating the MMO), it was stated that:

> *"coming out of the pilot, it was suggesting that a new body was required to deliver marine planning, that said WAG will probably do it in house. Scotland has created Marine Scotland, so yes, I think it came out by consensus, everybody could see there wasn't really anyone else given what would be required to be done, it didn't sit comfortably with any of the existing actors".*

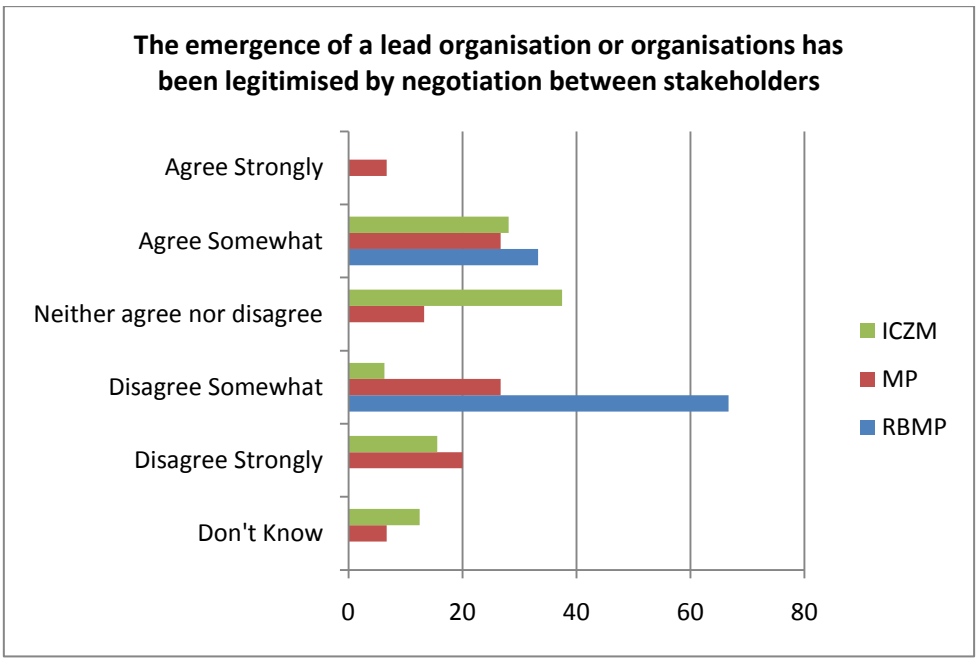
However one questionnaire respondent claimed that *"[the] MMO was largely non-negotiable, as was its subjugation to the parent Department"* demonstrating an opposing view, which was also supported by one interviewee who believed that the Marine and Fisheries Agency, who would become a significant part of the MMO, were *"entrenched in a close working relationship with fishermen"* and thus not sufficiently equipped to undertake the function of Marine Planning.

Figure 7.11: Questionnaire Response – Public Sector Sponsors



Source: Author

Figure 7.12: Questionnaire Response – Legitimacy of Lead Organisation



Source: Author

For River Basin Management, the identification of a public sector sponsor is clearer cut, with the Environment Agency acting as the key driver for River Basin Planning, though it was acknowledged

that *"DEFRA and WAG have been very supportive of the process".* Regarding the legitimacy of the EA as lead organisation, again, like the MSP case study there was disagreement as to whether there had been any discussion of the EA's role as leader, with one interviewee noting

> *"I think everybody recognises that the Agency is the competent authority and in some respects some are quite happy to let them get on with it, but there's not really been any negotiation on that",*

Whilst disagreeing more strongly, another interviewee stated that *"It wasn't a question of accepting, they appointed themselves as the lead organisation and there was never any opportunity to challenge that"*, demonstrating that a high-level mandate does not generate sufficient support for an organisation to be accepted as a leading, and also more powerful, partner in collaboration.

Lastly, in considering the ICZM case studies, the identification of public sponsors proved somewhat clearer cut, with the establishment of coastal partnerships, and particularly Dorset Coastal Forum, which is hosted by Dorset County Council, seen as a good example of the public sector taking the initiative, though it was recognised that there was often *"inertia"* from other partners with regards to taking a lead once another partner had assumed the role.

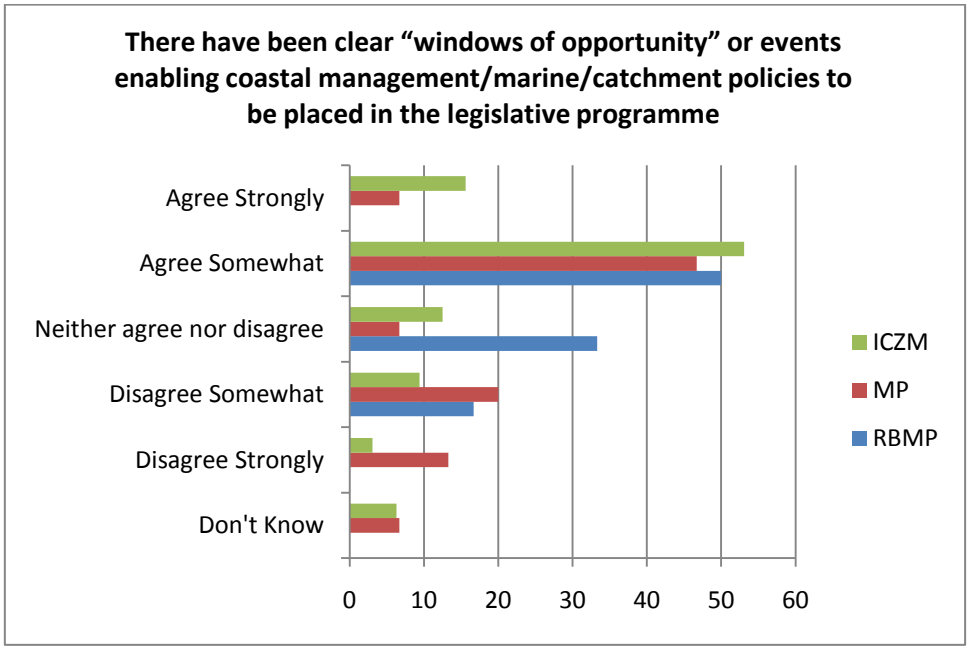
At the national level, some interviewees expressed that they would like DEFRA to take a greater lead on ICZM, but acknowledged that this could cause problems for the perceived neutrality of partnerships if they were to have more guidance (or more funding) from this one particular source, and the same criticism was also applied to partnerships that are reliant upon a host organisation, with one interviewee noting that *"it would be nice to actually have an independent, transparent person whose job it is to field the concerns or flack"*. However, the provision of resources or benefits "in kind" from many host organisations as noted by Atkins (2004) is crucial for the survival of smaller organisations.

<u>Windows of Opportunity</u>

"Windows of opportunity" were described in Chapter Three as a concept developed by John Kingdon (1995) in which the streams of the *political* (groups of actors)*, policy* (policy proposals) and *problems* (evidence of a problem) are brought together at opportune moments to push an idea onto the governmental agenda. The response to the issue of "windows of opportunity" in this section (and shown in Figure 7.13) reflects to some extent the relative maturity of ICZM compared to Marine Planning and RBMP as there is a greater recognition that such windows have been present at one

time or another, and within the Marine and RBM case studies differences of opinion may be attributed to the top-down or bottom-up nature of policy formation.

Figure 7.13: Questionnaire Response – Windows of Opportunity



Source: Author

In the case of ICZM, the 1992 House of Commons Environment Select Committee report on *Coastal Planning* was cited as an early window of opportunity that would have further embedded the use of ICZM more formally into land use planning policy, however as one interviewee noted, following the rejection of the recommendations in the report the Estuaries Initiative and voluntary coastal partnerships became *"a kneejerk response"*. Moving forward, the Entec report of the financial benefits of coastal partnerships (Entec, 2008) and DEFRA's own ICZM Strategy for England (DEFRA, 2009a) were cited as further missed opportunities as they failed to make the case for ICZM strongly enough – one interviewee describing their hopes for the DEFRA report as:

> *"what I would have liked that to have done is given a clear steer to coastal regions and authorities on what they do next – how do you go about setting up an ICZM type project or partnership in your area? It needs to be supported, what needs to be put in place, how are DEFRA going to help, what guidance is there?"*

Consultations on the Marine Bill and the proposed system of Marine Spatial Planning were also noted as an opportunity, and particularly for the Dorset Coast Forum this had been the catalyst for their C-SCoPE project, where it was explained that

"There has been a window of opportunity and we have chosen the area because of the [2012] Olympics, because it will be showcased. It ticks a box with the Olympic Games Committee, because they want to finance a green Olympics. But it's definitely a window of opportunity".

Also working on a more pragmatic basis at the local level, smaller "windows of opportunity" for coastal partnerships were cited by interviewees as being related to funding, with one interviewee from EGCP stating that *"with more money the partnership can do more work",* and developing that point further for the Severn Estuary, another interviewee observed that:

"We're entering a period when government bodies, local authorities, statutory agencies all have less resources. So how can we convince someone in the SEP to put some of their diminishing resources, whether that's cash or staff time - and staff time is a big expense for people - into the Severn Estuary?"

From these examples, it may therefore be said that windows of opportunity have not resulted in a fundamental change. Referring back to the conclusions made in Chapter Six, the definition of a coastal problem is not clear cut, and thus may have contributed to a lack of clarity in the *problem* stream. This may also have affected the higher levels of government, as it appears they have not been sufficiently active in championing the case for ICZM, thus presenting issues in the *political* stream.

These small but perhaps more frequent windows of opportunity for ICZM can be seen in contrast to RBMP, where the WFD was described as *"something we'll have to implement and we'll have to do because it's a Directive"*. The lack of any real windows was also attributed to the way in which the Water Framework Directive had been imposed, with one interviewee explaining that:

"It's been more of a top down process, because you're talking about things that happen on the ground that force opinion and policy".

In this sense, the *political* stream proves problematic again, in that it is only the highest level of government that is truly responsible for the WFD, and the *policy* stream is also shown to be weak as the top-down approach lacks the bargaining or consensus needed to legitimise the solution proposed.

The fact that windows of opportunity were also "quite few and far between" for marine planning was also observed, however this was seen to be as more part of the natural cycle of policy making than because of imposition from above. The Labour Party's election manifesto commitment to a Marine Bill was identified as placing marine issues on the political agenda, however two

interviewees referred to the *"long gestation"* of the Marine Bill, and the fact that *"you have to look back at what the NGOs have been pressing for, for a very long time now - they got all party support for the Marine Bill, so that's the other thing that helped them make progress with it"* suggesting that despite having the *political, policy* and *problem* streams evident, there was a more gradual process taking place to move marine planning up the governmental agenda.

Summarising the decision making section, the following points are highlighted:

- There is a degree of consensus and coordination for ICZM, demonstrating continuing interdependence, although this may be easily lost because of scarce resources to maintain activities, whilst coordination is still developing for Marine Planning and RBMP.
- There is recognition of lead organisations for ICZM, MP and RBMP, but they have not necessarily achieved this role through legitimizing debates, and thus perceptions of more powerful stakeholders still prevail.
- The "windows of opportunity" for Marine Planning and RBMP have been relatively few, but for ICZM more frequent windows that could have resulted in greater government support have been missed.

7.5 Structuring and Implementation

In this final stage of the collaborative policy making cycle, decisions are operationalised through the implementation of legal frameworks, policies and programmes that recognise the continuing interdependence of stakeholders in collaborative arrangements. The propositions for this stage of policy making are shown in Table 7g, and questionnaire responses to the propositions in Table 7h. As the questionnaire and interviews for this research were conducted prior to the Marine Bill receiving Royal Assent, and at an early stage in the first cycle of River Basin Management Planning, many of the views presented in response to this section of the questionnaire were speculative, although some key points could still be discerned. These are explained below.

Table 7g: Structuring and Implementation - Propositions

Conditions for Collaborative Policy Making/Other Issues to be Considered	**Propositions**
Redistribution of power	*Effective structuring involves negotiation among all stakeholders about how to regulate the domain, including negotiations about the implementation of actions and the power distribution necessary to do so. One outcome of structuring is an agreed upon allocation of power within the domain.*
Implementation Processes	For implementation to occur there must be agreement upon the allocation of necessary resources (financial and human) for practical actions to be undertaken.
Contextual Environment	*Successful implementation of collaborative agreements is contingent upon the stakeholders' collective ability to positively manage changes in their contextual environment. This involves monitoring changes and building relationships with actors outside the domain to insure that domain-level agreements are carried out.*

Source: Author

Table 7h: Questionnaire Responses for Structuring and Implementation

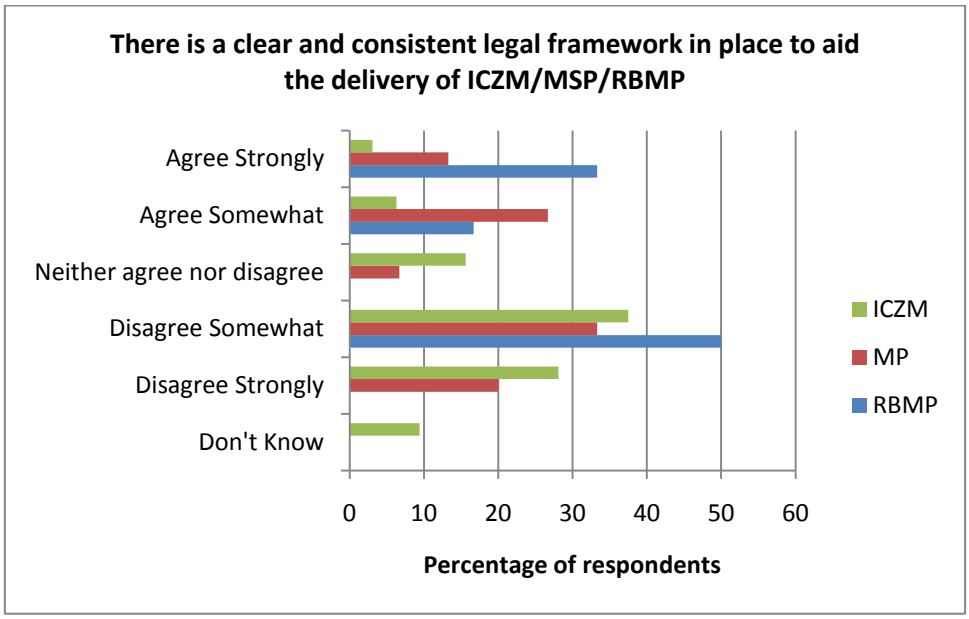
There is a clear and consistent legal framework in place to aid the delivery of ICZM/MSP/RBMP.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	1	2	5	12	9	3	8
MSP	2	4	1	5	3	0	2
RBMP	2	1	0	3	0	0	0
Formal responsibilities for promoting coastal/marine/catchment issues, taking objectives forward and overseeing implementation have been allocated.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	1	7	5	10	6	3	8
MSP	2	6	0	3	4	0	2
RBMP	0	1	2	2	1	0	0
The plan making process for ICZM/MSP/RBMP is clearly set out							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	1	6	3	12	7	3	8
MSP	2	3	1	4	5	0	2
RBMP	1	4	0	0	1	0	0
Long term financial commitment is in place for the implementation of ICZM/MSP/RBMP.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	1	2	2	8	16	3	8
MSP	0	1	5	4	5	0	2
RBMP	0	1	0	1	4	0	0
Work on measures to address coastal/marine/catchment issues is becoming more commonplace.							
	Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	No Answer
ICZM	1	24	4	1	0	2	8
MSP	2	9	4	0	0	0	2
RBMP	0	4	0	0	2	0	0

Source: Author

7.5.1 *Redistribution of Power:* Legal Frameworks and Allocation of Responsibilities

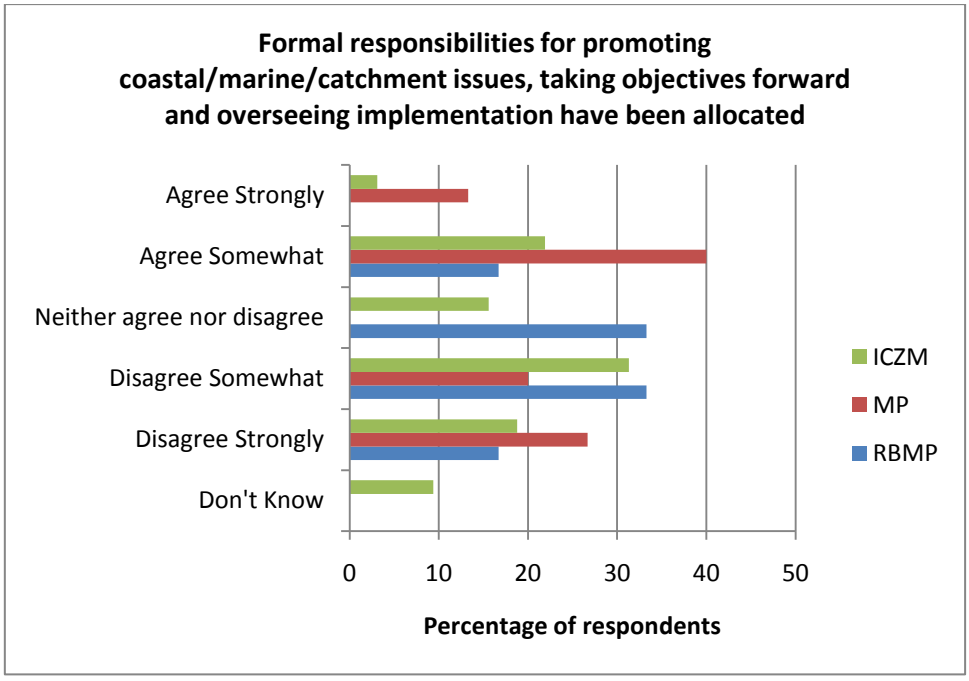
As with other statements featured in the questionnaire, these two issues are closely linked as the legal frameworks for ICZM, MSP and RBMP provide the structure for enabling the delivery of policies through assigning roles and powers to (some) stakeholders. Figures 7.14 and 7.15 show the responses to statements on these two issues.

Figure 7.14: Questionnaire Response – Legal Frameworks



Source: Author

Figure 7.15: Questionnaire Response – Allocation of Responsibilities



Source: Author

Of all the planning regimes examined, Marine Planning is the least advanced in its implementation and thus the picture of structuring and implementation that was elicited from the questionnaires and interviews is somewhat ambiguous, as is illustrated through the extremes of agreement and

disagreement shown in Figures 7.14 and 7.15. In terms of the legal framework for MP, one interviewee noted that *"we're moving towards it, and I'm not sure that the legal framework is all that contentious",* but on the other hand another interviewee observed that:

> *"We'll see what the Marine Bill brings in practice but since it's completely untested I'm a bit afraid that the Marine Bill won't deliver what we hope it will deliver".*

Similarly on the allocation of responsibilities for Marine Planning, the embryonic nature of the Marine Bill leads one interviewee to state that:

> *"I think that taking the objectives forward bit is interesting because it comes more to the heart of what marine planning and management is. I haven't seen any flesh on the bones of how objectives will be incorporated into marine plans, and monitored and reported against",*

However, from the perspective of another interviewee, the transfer of the Marine and Fisheries Agency and Sea Fisheries Committees into the MMO (with Sea Fisheries being replaced by Inshore Fisheries and Conservation Authorities) meant that some responsibilities would remain from the previous system of fisheries management, but would be *"somewhat enhanced"* under the Bill.

For RBMP, the legal framework was described as *"clearly set out as in it's been decided at a national level, this is the way we're going to go with it, and it's been cascaded down to processes, writing plans and consultation"* and thus the plan making process was also clearly laid out, but it was also acknowledged that the top-down way in which the WFD was implemented meant that there was *"not an awful lot of room for manoeuvrability"*. Another interviewee criticised this top-down approach for making plans *"hard for people outside the process to understand",* and that this would have future implications for stakeholder's ability to influence improvements to water quality in the future.

In terms of the allocation of responsibilities, one interviewee claimed that there was *"no clarity whatsoever on what will be delivered"* but that most of the responsibilities would be down to the Environment Agency, although at this stage the Programme of Measures, which is the main mechanism for allocating responsibilities to different stakeholders for delivering the objectives set out in River Basin Management Plans was not fully developed, leading to one Panel member to state that:

> *"There still some sectors which haven't got as much against them and that's been highlighted in the consultation... when we do have a better understanding of the issues we will have to push changes forward that address those issues, whatever way that happens to be".*

Thus there is further scope for responsibilities to be allocated on the basis of new iterations of the policy cycle and a more sophisticated or developed understanding of water quality problems.

The lack of a statutory footing for ICZM was described in Chapter One of this thesis as one of the main obstacles to implementation, and therefore it was unsurprising in the questionnaire responses (in Figure 7.15) to see that there was a significant disagreement with the statement on legal frameworks. However, some interviewees questioned the need for ICZM to have its own legal framework, noting in one case that:

> *"I think the legal structure for ICZM is again this shopping basket of everything from the Habitats Directives to the SSSI and SAC systems, the AONB systems... we've got all these bits of legislation, what I'd like to think of is that they are in my shopping basket, and I can go around my legal supermarket and I can pick off the shelves."*

Similarly, another respondent from EGCP made the point that *"we've had some interesting discussions about whether ICZM delivers marine planning, or marine planning delivers ICZM. But in the end I suppose it all comes down to the fact that if you do all this, ultimately you are delivering an integrated approach to coastal management"*.

Without a formally agreed framework for ICZM at national level, the question of responsibilities also produced a high level of dispute in the questionnaire responses, with the absence of guidance from national government leading to uncertainty about the role of coastal partnerships and the plan making process, and within partnerships themselves a lack of national steering produced a situation in which partnerships may struggle to maintain a balance of responsibilities between core staff and partner organisations – for the Severn Estuary Partnership it was noted that *"it's always been very hand to mouth, there's no funding structure, it very much relies on ad hoc approaches to local authorities and others to put money into it and time and effort",* and from another interviewee

> *"If you focus all your aspirations for activity on the staff team you aren't going to get much done. The tasks in the business plan will have to be done by the partners."*

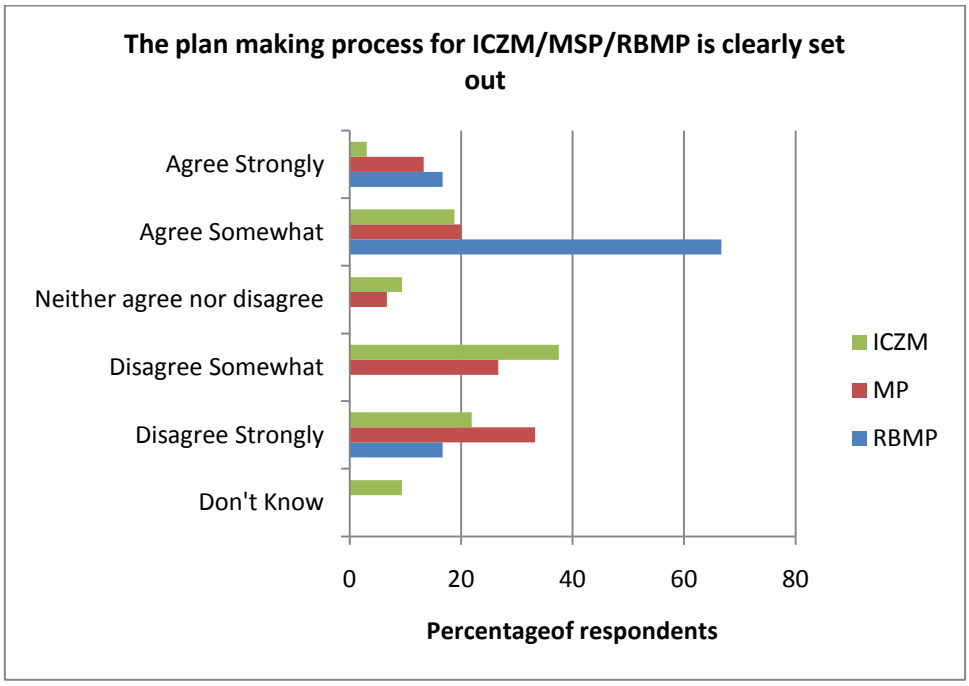
Yet despite these problems, the progress of the Marine Bill was seen by all ICZM case studies as central to coastal partnerships clarifying their own position within the framework of coastal management responsibilities, and whilst the full details of the Bill and the future system of Marine Planning were not known, this brought a level of uncertainty to the future implementation of ICZM as well.

7.5.2 *Implementation Processes:* Plan Making

Negotiations to create a legal framework and allocation of responsibilities in coastal planning regimes provide a structure which enables implementation to occur. Therefore the format of plan-making is itself a product of negotiation.

Figure 7.16 shows questionnaire responses on the development of the plan-making process.

Figure 7.16: Questionnaire Response – the Plan Making Process



Source: Author

Many of the issues surrounding the plan-making process are closely linked to responsibilities for ICZM, RBMP and Marine Planning, and thus to avoid repetition of points it is sufficient to say here that for RBMP, the top-down nature of the process meant that respondents did agree that a clear process had been set out, but that this structure was imposed nationally rather than fully negotiated. Similarly for ICZM, lack of agreement could be attributed to the argument that DEFRA had not provided sufficient guidance on ICZM – although it was noted that the original *Estuaries Initiative* guidance from 1992 provided a blueprint for collaborative working that was still largely relevant.

On the plan making process for Marine Planning, although the potential transfer of ideas from the terrestrial planning system was alluded to in Section 7.3 of this chapter with respect to experiments

in policy and institutional arrangements, there was some speculation on the form plan making would take, with one interviewee stating:

> *"if it's anything like regional planning, it will have to have quite a strong participatory component to it, which actually will involve a wide range of stakeholders who will actively participate, certainly the way we conceived of it in the Pilot"*

Yet with only an initial draft Marine Policy Statement being in place at that time, another interviewee was more uncertain, noting:

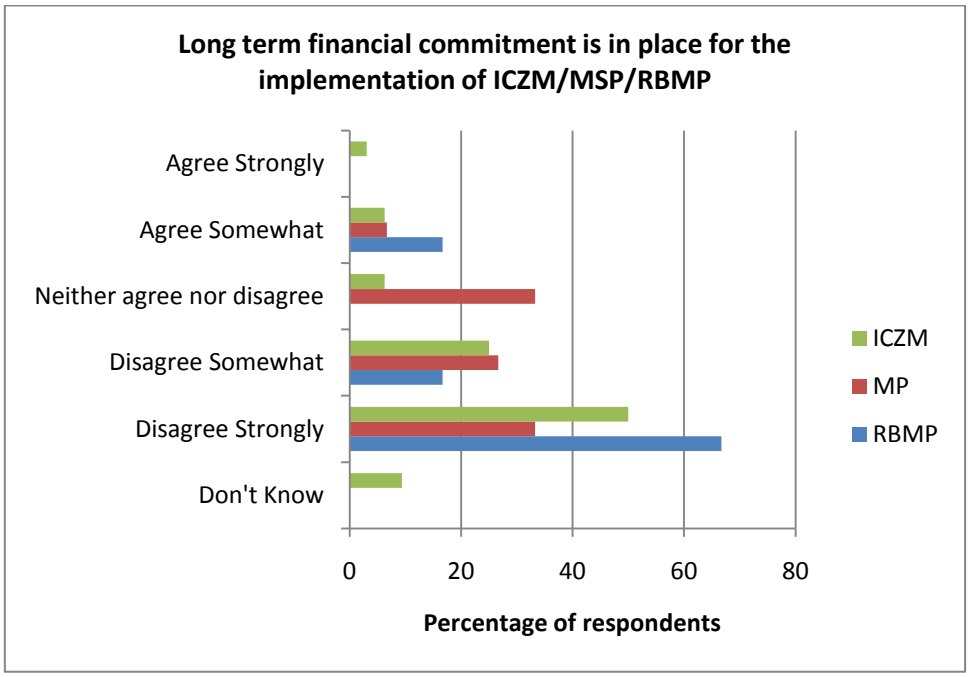
> *"the MPS is going to be some rough guidance. The consultation documents, all they've ever talked about is the MPS and marine plans. Marine plans sit somewhere else and the marine policy statement has never specified any more clearly".*

This position may have changed somewhat since interviews were undertaken, but demonstrates how the tiering of legislation, policy and plans must follow a logical sequence to provide clarity for plan making.

Financial Commitment

This statement on the questionnaire directly relates to having the appropriate framework of roles and responsibilities in place for each planning regime, and thus many of the responses to the statement on financial commitment (shown in Figure 7.17 below) have been tempered by the level of uncertainty that was expressed in section 7.5.1 in relation to such frameworks being in place. Also, an awareness of the economic crisis, the threat of wide ranging cuts in government spending and the expectations of a General Election were cited as reasons for the low level of agreement that funding was in place.

Figure 7.17: Questionnaire Response – Financial Commitment



Source: Author

For Marine Planning, it was noted that there was *"a general concern that planning for the MMO they've not appreciated the scale of the resources for marine planning"*, and similarly for River Basin Management, one Panel member surmised on the government's financial commitments to the WFD that *"they [the government] know it has to be implemented, I guess they intend to but just exactly how much that is likely to be is another thing"*.

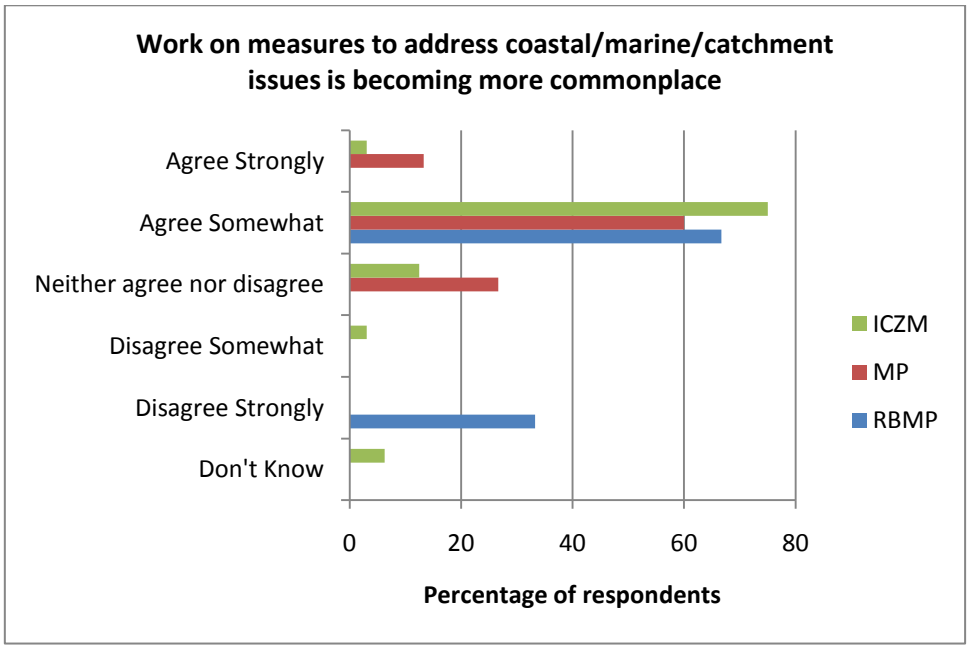
Where financial commitment is already known to be weak for ICZM, discussion regarding financial resources returned to the theme of neutrality that was previously explored in relation to lead organisations in Section 7.4.3, with interviewees noting that although additional funding would enable partnerships to do many more things, *"A partnership at the moment can really criticise DEFRA heavily – I keep saying DEFRA but it doesn't have to be DEFRA – we can criticise them heavily at the moment and that's fine. But if you were in their pocket, how could you do that? You wouldn't have that neutrality any more, you'd be partisan"*. Thus whilst financial resources may be available to coastal partnerships on a short term, sporadic basis as is evidenced by the numerous small scale projects undertaken, any long term financial commitment would require potentially difficult discussions between stakeholders to establish how the balance of power would be spread between funding or higher level funding and non-funding partners to ensure more equitable roles in the direction setting or decision making phase of collaboration.

7.5.3 *Contextual Environment:* Increasing Use of Coastal/Marine/Catchment Measures

This final statement on the questionnaire addresses the way in which stakeholders have been or are able to influence their contextual environment through the increasingly routine or commonplace use of ICZM, Marine Planning or RBMP. Whilst there is an anticipatory element to some of the questionnaire and interview responses on the use of Marine Planning and River Basin Management, Figure 7.18 shows that by and large, it was agreed that measures to address coastal, marine or catchment problems are increasing across all three regimes.

The ICZM case studies present an area where coastal management is already being done in some way, and thus across the case studies there was a general feeling that despite resource issues and a lower level of support from central government, achievements were being made in the production of management plans, research projects and in liaising with other stakeholders, and thus there was a momentum of activity.

Figure 7.18: Questionnaire Response: Measures Becoming More Commonplace



Source: Author

For Marine Planning, an increase in strategic actions was noted, with one interviewee observing that *"at policy level, with the WFD coming along as well, there are various attempts at trying to solve the marine problem going on. More is being done, but we probably haven't quite got there yet".* The establishment of Marine Conservation Zones also served as an example of greater activity in managing the marine environment.

With River Basin Management, whilst there was some agreement that more activities were taking place, it was acknowledged that there was still further investigatory work to be done, and that *"the biggest problem at the moment is when you don't really have a full understanding of the some of the issues it's very difficult to come up with measures"*, showing that future activities would be dependent upon feedback from the current measures being undertaken for River Basin Management and the reframing or reconstruction of catchment problems.

To summarise the structuring and implementation stage, the following points are of most significance:

- RBMP was seen to have a clearer legal framework and plan making process than either Marine Planning or ICZM, however this was developed at a high level without the agreement of stakeholders that would be required to implement plans. This meant that there was some uncertainty as to what the RBMP framework would ultimately deliver.
- Financial commitment is uncertain for Marine Planning and RBMP, and thus may require further negotiation and clarification of responsibilities, but in ICZM where funding has historically been hard to come by this is also attached to issues of convening stakeholders maintaining neutrality.
- There is an increasing use of measures to address coastal, marine and catchment problems, showing that overall, conditions conducive to collaboration are improving.

7.6 Conclusions

Having described and analysed the full collaborative policy making cycle in sections 7.2 to 7.5, this section draws some conclusions on the relationship between the propositions outlined by Gray (1985) that facilitate inter-organisational collaboration and the conditions present in the five case studies from ICZM, Marine Planning and River Basin Management. In doing so, the fourth key research question is addressed:

- As coastal planning regimes go through the policy cycle, what factors have the greatest influence on policy formulation and decision making?

Furthermore, an evaluation of the collaborative policy making cycle itself will also be undertaken, considering its use as both a general theory of the policy process and as a methodological framework for investigating collaboration.

The collaborative policy making cycle used in this research is a synthesis of several approaches, including John Hannigan's (1995) model of the social construction of environmental problem, which was found in Chapter Three to represent an initial step in the policy process, general models of the policy process, from Lasswell (1956), Hogwood and Gunn (1984) and Howlett and Ramesh (2003), and the work of Barbara Gray on conditions facilitating inter-organisational collaboration.

In drawing these theories together, an attempt has been made to define policy making in a way which reflects communicative approaches to planning, some of the characteristics of which are described by Healey (1992) as interaction, openness, acknowledging and respecting different values, reflexivity, creating mutual understandings and building shared outcomes, and it is hypothesized that through this communicative or collaborative approach, coastal stakeholders can facilitate further integration of different perspectives on coastal problems, policies, processes, and even spatial dimensions of the coastal zone.

7.6.1 Problem Recognition: the Foundation for Policy Making

Whilst the problem recognition stage of the collaborative policy making cycle was analysed in the previous chapter, the main conclusions from this analysis must be reiterated as this provides the foundation for the events that occur in the later stages of the cycle. In summary, the key findings of Chapter Six were:

- The social construction model developed by Hannigan (1995) does not in itself reveal the nuanced way in which factors deemed necessary for the social construction of problems appear in constructing claims – some factors or prerequisites are more persuasive, and thus Hannigan's model can be developed to reflect this.
- Problem recognition is only the first step in the policy cycle – neither Hannigan's model of social construction, nor Kingdon's (1995) model of agenda setting and "windows of opportunity" can fully explain the leap from problem recognition to implementation of a solution.
- The social construction of the coastal problem is based upon a fragmented evidence base that does not provide a holistic picture of the interface between land and sea, however strong institutional sponsorship from European and other international bodies has ensured that ICZM has been taken up on a less formal basis in the UK.
- The social construction of the marine problem is based mainly on scientific evidence, pressure from NGOs and recognition that there needs to be greater integration between sectors using the marine environment.
- The social construction of the catchment problem is driven by the European Union and an inherited definition of water quality problems from central government that is not fully understood, nor does it accurately reflect local circumstances.

The first two of these points are related to the theoretical underpinnings of problem recognition, and whilst they are important these matters have been explored fully in Chapter Six. Therefore for this chapter, the remaining three points on the social construction of coastal, marine and catchment problems must be borne in mind when analysing the way in which policies come to be formed.

In Chapter One the fundamental assumption of this research was identified as being that *the definition of an environmental problem, and the formulation and implementation of a solution, is the product of a process of social construction.* Therefore the social construction of coastal, marine and catchment problems are of utmost importance in shaping the events that happen in the later stages of the policy making cycle.

This is most clearly demonstrated in the case of River Basin Management, where the historical recognition of poor water quality as a European-wide problem has gone through several iterations of the policy cycle, or "waves" of policy, as described by Kallis and Butler (2001), and a number of existing Directives were brought together under Water Framework Directive 2000/60/EC. Having an established competency for water quality matters, the top-down approach to managing the water environment was therefore easily transferred to managing river basins, and referring to Howlett and

Ramesh's characterisation of the top-down approach to implementation (2003, see also Chapter Four of this thesis) the WFD provides a dominant piece of legislation which structures subsequent actions.

At the other end of the spectrum, the more ambiguous way in which the coastal problem is constructed has also proved problematic in terms of structuring a response. In the first place, it must be remembered that the notion of a "coastal zone" is itself a social construct and subject to different interpretations based on historic and cultural contexts, as was demonstrated in Chapter Two. Therefore whilst international popularisers/sponsors of coastal problems have been present, the response to coastal problems has been weaker, with *ICZM Recommendation 2002/413/EC* providing a framework for more concerted action. As ICZM was not taken up with great enthusiasm in national government and embedded into environmental policies, NGOs, local and academic champions have provided the impetus for delivering ICZM through coastal partnerships. Without a formal structure for implementation, ICZM has thus developed on the basis of bottom-up joint working between voluntary arrangements of stakeholders.

Between the top-down approach of the WFD and the bottom-up approach of ICZM, the social construction of Marine Planning captures elements of both, with NGOs acting as a significant bottom-up driver for constructing the marine problem, and then the government providing the top-down element by taking Marine Planning forward through the Marine Bill.

Therefore in the problem recognition stage of policy making, top-down and bottom-up elements of implementation are already beginning to manifest, and this is carried through to subsequent stages of the policy cycle.

7.6.2 Building Consensus

In the consensus building stage, the coastal, marine and catchment domains begin to organise themselves as a solution to their respective problems is sought. The conditions outlined by Gray relevant to consensus building are:

- Interdependence – the greater degree of interdependence, the greater the chance of initiating collaborative working.

- Identification of stakeholders – the stakeholder set must reflect the complexity of the problem and a greater number can provide more information, however it is noted that the stakeholder set will change over time.
- Legitimacy – stakeholders must acknowledge other's legitimacy, and exclusion of stakeholders may constrain future collaborative working.
- Beliefs about outcomes – when stakeholders believe that the benefits of collaboration are greater than the costs they are more likely to join collaborative efforts.

In this stage, the initial process of problem recognition again provides the basis for subsequent actions. In Marine Planning and ICZM, where there is not necessarily consensus on the nature of the problem, but the competing interests of government departments have been recognised as preventing integration, it has been found that stakeholders understand to a certain extent that they are interdependent and need to find joint solutions to their problems. Consequently, in beginning to search for solutions, this has opened out opportunities for stakeholders to become engaged through consultations and stakeholder workshops (for example on the Marine Bill), or through open forums and meetings in the case of ICZM, creating positive beliefs about finding a solution to the coastal/marine problem.

Where problem definition has been dominated by one particular perspective, in the case of RBMP, opportunities for stakeholder engagement have still been present, but without having contributed to problem definition in the first place, stakeholders that should be involved in RBMP lack a broader sense of "ownership" of the problem. Also because water quality is constructed as a matter for the institution of the European Union to deal with, and the Environment Agency (or SEPA for Scotland) has been imposed as a convenor for River Basin Management efforts without an exploration of other possible leaders, the message of interdependence and the need for joint problem solving is not successfully conveyed. Beliefs about outcomes are also affected by this top-down construction of catchment problems, as without ownership of the problem, stakeholders may not feel that it is in their interest to collaborate. It is for these reasons that many of the stakeholders who have a major role to play in delivering the Programme of Measures are absent from the early stages of decision making in RBMP.

In considering the issue of legitimacy of stakeholders, one positive trend is noted across all three planning regimes – whilst it was noted that no specific reference was made to stakeholder legitimacy in the questionnaire, the general perception of interviewees was that the planning process for their respective regime should be as open as possible in order that the interests of all sectors are addressed. This confirms the assumption made in choosing Marine Planning and RBMP to compare

against ICZM that all three regimes, in theory at least, promote a participatory, inclusive approach to planning. Thus in identifying stakeholders or interests that have been absent from collaborative efforts, this is not due to deliberate exclusion, but rather a failure to communicate the benefits of collaboration widely.

7.6.3 Exploring Options

In this stage of the collaborative policy making cycle, the following conditions are considered to facilitate collaboration:

- Policy design – previous iterations of the policy cycle and experimentation in policy and institutional arrangements facilitates joint learning between stakeholders
- Coincident values – information search and the emergence of coincident values helps direction setting
- Dispersion of power – a dispersal of power between stakeholders is considered conducive to collaboration, but an equal distribution may provoke stalemate.

In the exploring options stage, the top-down and bottom-up approach are still central to explaining the findings of this section, and also the relative maturity of each planning regime becomes an important factor. Thus whilst there are no real “experiments” in the case of River Basin Management, the fact that the River Basin Planning process has been imposed from national government has to be tempered with the fact that this first iteration of the policy cycle is the experiment in one sense, representing a steep learning curve for all stakeholders as they adapt to a new planning system, and in many cases, collaboration as a new way of working which may facilitate the development of coincident values in future.

Similarly for Marine Planning, whilst a richer body of experience (particularly in terrestrial planning) is cited as a foundation for the proposed new system, the marine environment is more multi-dimensional than land-based planning, and less well understood. An adaptive system of marine management of which Marine Planning is part, will be key to accommodating learning from joint information searches and further consensus building.

In exploring options for ICZM, frequent interaction between stakeholders at local levels in small projects provides evidence of learning and developing coincident values, however the weakness of

vertical links between local and national levels of governance or statutory bodies are highlighted as a barrier to consensus and accessing more powerful stakeholders who can facilitate further direction setting and structuring of the domain through formal means such as legislation, policies and the provision of resources.

Finally in the exploring options stage, the issue of power and the uneven dispersal of powers between stakeholders is addressed. Whilst the majority of views are pragmatic and recognise that the dispersal of power is uneven and that it may be difficult or even undesirable to redistribute power, the causes of this uneven dispersal must be related back to the original social construction of the problem – thus with catchment problems conceived of as a European-wide issue, power is invested in the European Union, national government and their executive agencies. For ICZM, lack of clarity on the nature of the coastal problem and an agreed solution thus results in those agencies that do have power (statutory bodies) failing to use them to their best effect, leaving less powerful stakeholders (the coastal partnerships) struggling to move forward on a set of ambiguous objectives or principles.

7.6.4 Decision Making

In the decision making stage, the following conditions are considered necessary:

- External mandates – external mandates, coupled with ongoing interdependence and an appropriate balance of power can provide a structure for collaborative work.
- Degree of ongoing interdependence – continuing interdependence must be recognised for implementation to occur.

For this stage of the policy making cycle therefore, questionnaire and case study interviews asked about events which provide examples of decision making and structuring for their planning regime, such as the emergence and legitimacy of lead organisations and windows of opportunity, and ongoing interdependence was determined by reference to the levels of coordination and consensus between stakeholders at different levels of governance.

In the case of ICZM, weakness in vertical linkages again proved to be a fundamental cause of problems – at the local level, coastal partnerships are widely accepted as a legitimate lead

organisation for coastal management activities, however the number of missed windows of opportunity such as the rejection of the House of Commons Environment Select Committee recommendations in 1992 and DEFRA's 2009 ICZM Strategy for England have meant an absence of strong national support for ICZM. This absence of support is only just being addressed now through the Marine (Scotland) Act, which places a statutory duty on local authorities to deliver ICZM, and the UK government's draft Marine Policy Statement (HM Government, 2010), which commits the UK's devolved administrations to manage coastal areas in line with the principles of ICZM.

For RBMP and Marine Planning, windows of opportunity have been noted as less significant, and therefore top-down and bottom-up political drivers have been key to decision making. In the case of Marine Planning, long term campaigning from NGOs and the work of the MSP Pilot has brought Marine Planning to the fore, although there is broad recognition that DEFRA or the MMO is the most appropriate lead organisation to take Marine Planning forward. Thus a synthesis of top-down and bottom-up approaches has brought stakeholders together with more powerful partners (national government) on a consensual basis to provide a structure for the domain. In the case of RBMP, the top-down approach has positioned the Environment Agency as a lead organisation (though this may be in large part due to its historical responsibilities for water quality measures), without legitimising debates or any exploration of alternative sponsors.

7.6.5 Structuring and Implementation

For this final stage of collaborative policy making, the following conditions must be in place:

- Redistribution of power – structuring the domain involves negotiating and setting rules for regulation of the domain, including an agreed allocation of power.
- Implementation processes – agreement on the allocation of resources is needed to facilitate practical action.
- Contextual environment – the collective ability of stakeholders to influence their domain and build relationships with actors outside the domain.

In section 7.5 it was noted that for RBMP and Marine Planning in particular, the relative newness of these planning systems meant that the findings of the structuring and implementation stage were based on suppositions about the way those respective regimes would develop, and thus concluding comments here will be limited to observing that the top-down nature of RBMP does provide a clear structure for implementation, but without proper expression of the benefits of collaboration, there

remains some gaps in allocating responsibilities to those stakeholders needed to fulfill the Programme of Measures, whilst for Marine Planning consensus on a final Marine Policy Statement is required to realize the full extent of collaborative working and integration that may be possible.

However ICZM, being the most mature of the three regimes provides more substantial evidence upon which conclusions about structuring and implementation may be drawn. In this stage, structuring is characterised as bringing a degree of formalisation to collaborative arrangements through legal frameworks, allocation of responsibilities, a systematic plan making process and providing financial resources, and thus as a non-statutory system of management, these conditions are largely absent from ICZM.

However this does not prevent coastal partnerships from delivering ICZM, as even without a formally structured planning and management system in place, goal setting and plan making is able to progress at the local level through consensus building and negotiation. In the exploring options stage (section 7.3 of this chapter), the strategic principles of coastal partnerships were referred to as *"motherhood and apple pie"*, reflecting a view that they may be broad enough to be uncontroversial and indefinable, however this point also demonstrates that without a clear definition of the coastal problem at higher levels of governance, it may not be possible to provide a clear direction for coastal policy that can be cascaded down to the stakeholders that deliver ICZM on the ground.

In Chapter Four, the following quote from Schattschneider was used to illustrate the way in which discourses around "problems" are shaped:

> *"the group that successfully defines a problem will also be the one that defines solutions to it, thereby prevailing in the policy debate"* (1960, in Birkland, 2005:109).

Through this analysis, it has been demonstrated that the above quote holds true, as the manner in which coastal, marine and catchment problems are defined by more or less powerful groups dictates whether solutions are implemented by top-down, bottom-up or synthesis approaches.

7.6.6 Some Conclusions on the Collaborative Policy Making Cycle

In undertaking the second phase of empirical work that has been the subject of this chapter, some comments must be made on the use of the collaborative policy making cycle framework as both a theory and methodology for investigating how collaboration is used in practice.

At the beginning of Section 7.6, reference was made to the way in which the collaborative policy making cycle has been built on a synthesis of John Hannigan's (1995) social construction of an environmental problem, stages of the policy cycle outlined by Howlett and Ramesh (2003) and Barbara Gray's conditions facilitating inter-organisational collaboration (adapted by Jarvis, 2007), and reflecting some of the characteristics outlined by Healey (1992) of communicative planning theory. In this synthesis, the work of Hannigan (1995) and Gray (1985) provides a number of propositions about conditions which must be present in order to first define a problem (in the case of Hannigan) and then devise and implement a structure for collaborative efforts to solve a problem (Gray). Whilst there are some overlaps in the social construction of a problem and what Gray terms the "problem setting" phase of collaboration, the two sets of propositions combined and set within the framework of the staged policy cycle (with some additional propositions from the author added to capture other elements of policy making) provides a full set of criteria against which collaboration in policy making can be evaluated.

In addition, referring back to the conclusions of Chapter Three in which Hannigan's (1995) social construction model was found to be insufficient to fully explain how problem recognition then leads to implementation of a solution, by appending Gray's model to Hannigan's, this extended set of propositions or prerequisites provides a logical progression from problem recognition, through direction setting and decision making to implementation, thereby addressing one of the major shortcomings of Hannigan's model.

Taking this collaborative policy making cycle as a methodology for analysing coastal planning regimes, one strength of the model has been identified as its usefulness as a tool for benchmarking degrees of collaboration within coastal planning regimes. Whilst the notion of "best" ICZM practice has been criticized by Davos (1998) and reference has been made to the failures of "ideal", technical-rational planning processes, rather than try to eliminate values or politics from decision making, the model of collaboration proposed by Gray incorporates the search for coincident stakeholder values as a driver of collaboration. In this sense, therefore, the propositions made by Gray as conducive to collaborative working represent an ideal situation, but an ideal situation in which individual values and preferences are revealed rather than obscured in the decision making process.

Subsequently, by incorporating values and preferences into the process of decision making, Hannigan and Gray's propositions combined can be used to demonstrate how the relative powers of stakeholders influence and structure decision making – first through attempts to define a problem, where the findings of this and the previous chapter have shown that, for example, the dominant

discourse of the European Union around water quality places them in a position of being a powerful institutional sponsor and leader of efforts to solve the problem, and that in subsequent stages of decision making, these powers are not truly dispersed amongst other stakeholders. On the other hand, an ambiguous definition of the coastal problem disperses power amongst a number of stakeholders, and efforts to combine these powers in collaborative relationships are hampered by weak linkages between more and less powerful stakeholders.

Finally, the applicability of the collaborative policy making framework to other examples of policy making will be discussed more fully in the concluding chapter (Chapter Eight), however here it will be pointed out that in applying the framework to three environmental planning regimes that are seen to originate from different levels of government and with varying degrees of formality, it has been demonstrated that the collaborative policy making cycle can provide a synthesis approach to investigating top-down and bottom-up styles of implementation.

CHAPTER 8: Conclusions: Reflections on Collaboration in Coastal Planning Regimes

8.1 Introduction

This final chapter of the thesis brings together the main findings of the research in order to provide some final conclusions about the use of collaboration in coastal planning regimes and make recommendations for future policy development and research.

The chapter begins with a review of the aim and objectives of the research and the key findings from each chapter. These findings are discussed with reference to the research objectives, and some overall conclusions of the thesis are presented. This is followed by a critical reflection upon the research methodology, its strengths and weaknesses, and possibilities for future development.

To conclude, a set of recommendations for the use of collaboration in ICZM and the broader field of coastal management will be provided.

8.2 Research Summary: Review of Aim and Objectives

In order to summarise the research that has been undertaken, reference must be made to the research aim and objectives, and the thesis structure set out in Chapter One.

Aim

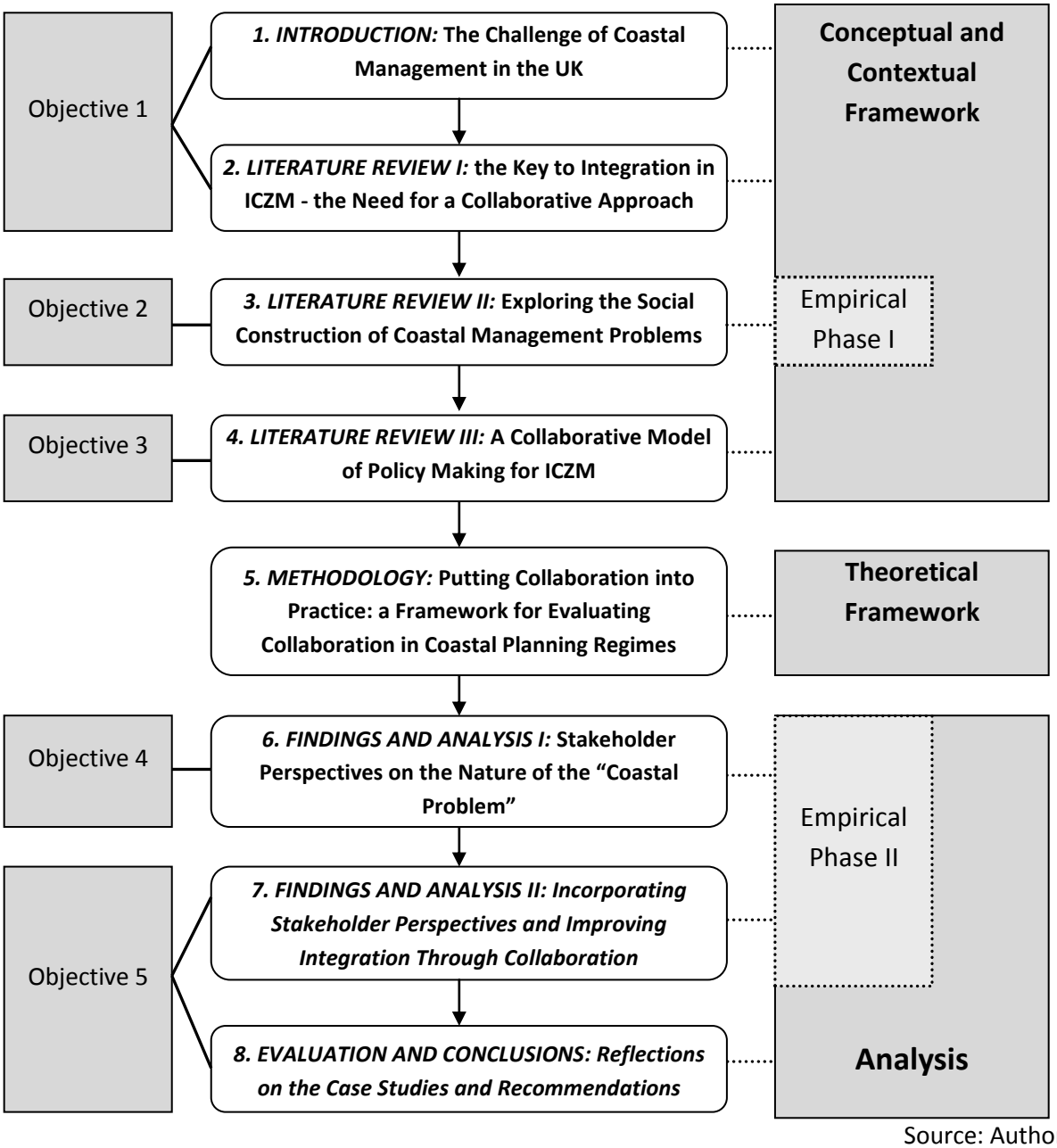
To critically assess the implementation of ICZM in the wider context of coastal planning regimes, in order to develop a more effective model of collaboration for coastal governance.

Objectives

1. To critically assess the practice Integrated Coastal Zone Management in the UK and place this in the context of current planning and management regimes for the coastal and marine environment.
2. To explain the emergence of coastal planning regimes in terms of the social construction of a "coastal problem" in order to understand the different policy responses that may occur.
3. To develop an understanding of how integration may be facilitated by collaboration between stakeholders in coastal organisations.

4. To determine what factors are most important in practice for constructing claims about a coastal problem, and provide a reappraisal of the social construction model proposed by John Hannigan.
5. To evaluate how collaboration is embedded within the plan making processes of coastal organisations and provide recommendations as to how collaborative policy making may be improved.

Figure 1.3: Summary of Thesis Structure



Source: Author

Objective One: To critically assess the practice Integrated Coastal Zone Management in the UK and place this in the context of current planning and management regimes for the coastal and marine environment.

In meeting Objective One of the research, Chapters One and Two introduced the practice of ICZM, which was proposed as one of the ways in which the complex problems of the coast could be addressed through the coordination and integration of activities on both sides of the land-sea divide. However, a number of ICZM " implementation failures" had been observed in the UK, for example by the Local Government Association (2002) and Stojanovic and Shipman (2007), relating to, most importantly, a lack of national ICZM policy, the voluntary nature of coastal partnerships (the organisations which attempt to promote and deliver ICZM) and information gaps. Furthermore, the failures of ICZM were set against a backdrop of other newly emerging planning regimes which have implications for coastal management, including Marine Planning and River Basin Management, as required under the European Union's Water Framework Directive 2000/60/EC, which raised issues about the future of ICZM implementation.

It was at this point that two fundamental hypotheses of the research were introduced, first:

- the definition of an environmental problem, and the formulation and implementation of a solution, is the product of a process of social construction,

and secondly:

- improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders on the nature of problems and solutions.

In Chapter Two, much attention was given to exploring the meaning and different dimensions of integration which underpin ICZM activities, including integration in horizontal and vertical, spatial and temporal dimensions, and integration of sectors, institutions, policies and across disciplines.

Communicative planning, as characterised by Healey (1992) may facilitate integration through open and inclusive planning processes which recognise different constructions of knowledge, possibilities for learning and opportunities for building consensus around the nature of problems and common objectives. Communicative planning theory therefore supports the second assumption of the thesis, that improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders.

Objective Two: To explain the emergence of coastal planning regimes in terms of the social construction of a "coastal problem" in order to understand the different policy responses that may occur.

This objective relates specifically to Chapter Three and the first phase of empirical work. Building on the assumption of Chapter One, that *the definition of an environmental problem, and the formulation and implementation of a solution, is the product of a process of social construction,* this chapter sought to examine how coastal problems were socially constructed using John Hannigan's (1995) model of the social construction of an environmental problem. Hannnigan's model outlines six prerequisites that must be present in order to socially construct a claim, including scientific authority for and validation of claims, the existence of popularisers who can link science and environmentalism, use of the media, dramatisation of the problem in visual or symbolic terms, economic incentives for taking positive action and the recruitment of an institutional sponsor.

In determining how different social constructions of an environmental problem may lead to different policy responses, the social construction of coastal problems was compared against the social construction of the marine problem (which provided the grounds for a proposed new system of Marine Spatial Planning) and river basin or catchment problems, which formed the basis of the European Union's new Water Framework Directive 2000/60/EC. These regimes were chosen for comparison because of similarities in terms of their broad sustainability and integration objectives, and participatory processes.

The findings of this comparison are divided into two parts. First, in comparing the social construction of coastal, marine and catchment problems, it was found that for ICZM, despite the support of high profile institutional sponsors such as the European Union, the division of scientific evidence between the land and marine sides of the coastal zone prevented a holistic picture of coastal problems being constructed. For Marine Planning, scientific evidence and pressure from NGOs were found to be key aspects of defining the marine problem, and for RBMP, strong leadership from the European Union as a populariser and institutional sponsor provided the basis for defining a European-wide catchment or water quality problem.

Finally, in evaluating Hannigan's model as a means of exploring the social construction of environmental problems, it was found that the model did not reflect the nuanced way in which certain prerequisites featured more or less strongly in the construction of a problem, for example, as use of the media and economic incentives for action were less persuasive in making a case for ICZM. Also, the social construction model did not provide an adequate explanatory framework for

exploring the process of decision making and policy formulation once a problem had been defined. These two points provided grounds for further investigation of the way "problems" were socially constructed in practice, and how this definition might lead to a solution.

Objective Three: To develop an understanding of how integration may be facilitated by collaboration between stakeholders in coastal organisations.

For this objective, the thesis built on some early insights into the different dimensions of integration featured in Chapter Two, and, based on the assumption that *improved integration and implementation of ICZM is dependent on a continuous discourse between stakeholders on the nature of problems and solutions,* a collaborative policy making cycle based on the prerequisites outlined by Hannigan for the social construction of problems and the work of Barbara Gray (1985) adapted by Jarvis (2007), was proposed as a method of incorporating discourse and consensus building between stakeholders into every stage of the policy cycle.

This model of collaborative policy making was then used as the basis for the second stage of empirical work. A case study approach was taken to investigating the use of collaboration within the three planning regimes of ICZM, Marine Planning and RBMP, with the propositions of the collaborative policy cycle being turned into a series of generic questionnaire statements designed to capture the way in which coastal, marine or catchment problems are constructed and also examining the extent to which conditions facilitating collaboration are present. The questionnaire also formed the basis for semi-structured interviews with representatives from each of the case study organisations.

Objective Four: To determine what factors are most important in practice for constructing claims about a coastal problem, and provide a reappraisal of the social construction model proposed by John Hannigan (1995).

This objective has been met by a combination of the first phase of empirical work in Chapter Three, which examined the social construction of coastal, marine and catchment problems through a literature review, and the second phase of empirical work which is based on the case study research and reported in Chapter Six.

In Chapter Three, following an initial literature review it was proposed that Hannigan's model could be refined to show the more nuanced way in which problems are constructed. Through the

collaborative policy making cycle and questionnaire developed in Chapters Four and Five respectively, the case studies from ICZM, Marine Planning and RBMP were used to test this theory, with questionnaire respondents providing their own perspectives on how coastal, marine and catchment problems are constructed, and by appending propositions about the use of collaboration, it was possible to see how problem recognition influenced the remaining stages of the policy cycle. The findings of this questionnaire showed how prerequisites such as scientific evidence, endorsement of evidence and institutional sponsors were stronger elements in claims making for each regime, and in particular the issue of who defines problems was identified as key to explaining the way regimes move through the policy cycle.

In reconsidering Hannigan (1995), it was therefore found that acknowledging a more nuanced perspective of Hannigan's model, in which prerequisites may display a weak or strong presence, provided a more accurate evaluation of the social construction of environmental problems. The addition of a statement in the questionnaire relating to the achievements of previous policy initiatives also enabled the model to take account of problems that are reconstructed through repeated iterations of the policy cycle.

Objective Five: To evaluate how collaboration is embedded within the plan making processes of coastal organisations and provide recommendations as to how collaborative policy making may be improved.

This objective has been partly met by the second phase of empirical work which is reported in Chapter Seven and is completed by the conclusions and recommendations featured in this chapter.

In Chapter Seven it was found that the use of collaboration varies considerably across ICZM, Marine Planning and RBMP, with ICZM displaying high levels of collaborative working at the local level, but failing to engage what might be considered more powerful stakeholders from statutory bodies and national government due to vague definitions of the "coastal problem" and a lack of shared beliefs about the benefits of collaboration. In RBMP, collaborative working was found to be minimal due to the top-down nature of implementation which excluded many stakeholders from the decision making process, and in Marine Planning, limited collaboration had been fostered by recognising a lack of integration in previous initiatives.

The final set of conclusions and recommendations that contribute to Objective Five are now considered below.

8.3 Conclusions

Having reviewed the research objectives, the conclusions presented here contribute to meeting the overall aim of the thesis, which is:

> *To critically assess the implementation of ICZM in the wider context of coastal planning regimes, in order to develop a more effective model of collaboration for coastal governance.*

The conclusions therefore address three main issues – the social construction of environmental problems, the collaborative policy making cycle and the implications of this research for coastal planning regimes.

The Socially Constructed Nature of Environmental Problems

In Chapter One, the socially constructed nature of environmental problems was identified as a catalyst for implementing different policy regimes and in Chapter Three, this assumption was explored using John Hannigan's (1995) propositions for the social construction of an environmental problem, which had previously been used by Peel and Lloyd (2004) to analyse the emerging system of Marine Spatial Planning.

In choosing to compare the social construction of ICZM against Marine Planning and River Basin Management Planning, this research has revealed not only insights into the way that the "coastal problem" is socially constructed, but also opened up the research to consider what, if anything, may be learned from the implementation of other coastal planning regimes that may contribute to the theories and future practice of ICZM. Using a comparative study approach in this way therefore represented a departure from previous studies of ICZM, the majority of which have been limited to comparing examples of practice from within the field of ICZM (see for example McGlashan 2002, Gubbay, 2002, and Stojanovic and Shipman, 2007) as a means of defining shortcomings and contributing to improved practice.

Whilst it is acknowledged that applying Hannigan's model to coastal planning regimes is not a new idea, the application of this approach in the thesis has enabled a reappraisal and development of Hannigan's original concept. Testing the model through first a literature review, this identified the potentially nuanced way in which the prerequisites suggested by Hannigan contribute to social construction, and then a survey of stakeholder perspectives of socially constructed problems helped to confirm this observation, demonstrating that in the coastal planning regimes investigated, different combinations of scientific evidence, popularisers or institutional sponsors are the main factors driving the social construction of problems, whilst the use of the media, dramatisation of the

problem in symbolic terms and economic incentives for taking action are not necessarily as persuasive in claims making.

This conclusion also highlights the fact that coastal, marine and catchment problems are not "novel" in a manner that captures attention through the media, but based on a longer term discourse and understandings of previous attempts to address problems. The inclusion of a statement in the "Problem recognition" section of the questionnaire which encouraged respondents to think about the success or failures of previous initiatives thus provided an additional factor which is not addressed in Hannigan's model - the importance of feedback from previous iterations of the policy cycle for reframing environmental problems.

Also in Chapter Three, the initial testing of Hannigan's model identified its lack of explanatory powers in relation to moving from the social construction or definition of a problem to implementation of a response. This has been addressed through the development of the collaborative policy making cycle, and the conclusions of this phase of the research are now discussed.

The Collaborative Policy Making Cycle

As described in Chapters Four and Seven, the collaborative policy making cycle used in this thesis represents a combination of theories, and by combining the propositions of Hannigan (1995) on the social construction of environmental problems with Barbara Gray's (1985) conditions facilitating inter-organisational collaboration into a staged policy making cycle, this extended set of propositions enhances two theoretical frameworks, and in a similar vein to the governance performance indicators developed by the Intergovernmental Oceanographic Commission for Integrated Coastal and Ocean Management (IOC, 2006), the collaborative policy making cycle and its associated propositions provide a set of normative criteria against which collaborative policy making can be evaluated.

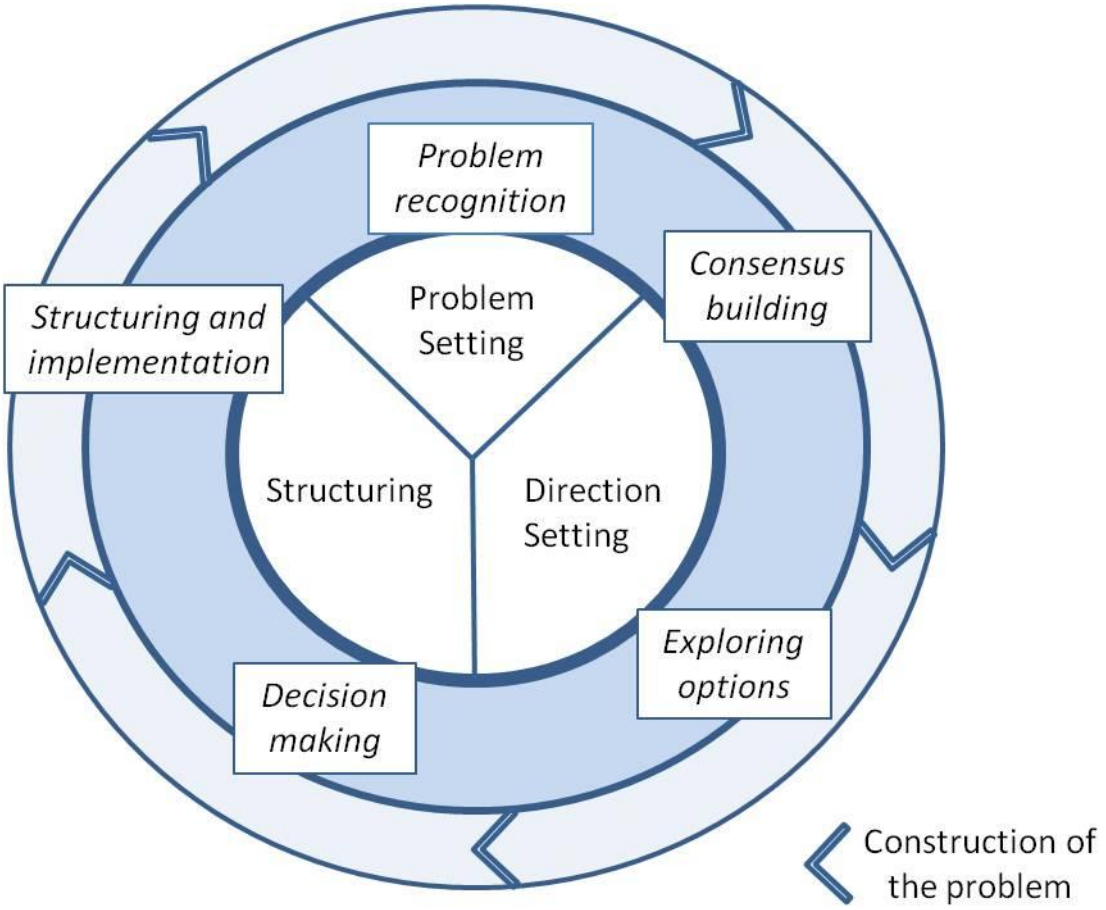
First, with regards to the gap identified in Chapter Three between problem definition and implementation of a response, appending the Hannigan model with Gray's propositions, the collaborative policy making model bridges this gap and the two sets of propositions together provide a logical extension of the social construction model into further stages of policy making.

In evaluating the implementation of ICZM, Marine Planning and RBMP against the conditions set out in the collaborative policy making cycle, the social construction or definition of the problem was

found to be fundamental in structuring the process of decision making and policy implementation that followed. This is because the Gray model is founded on learning and the search for common ground between organisations, whether this is in the construction of a problem or agreeing a common future for the domain. Therefore at every stage of the policy cycle a process of constructing and reconstructing the problem takes place as stakeholders share information and attempt to reach agreement on issues such as the balance of power in collaborative arrangements and rules that structure implementation.

In addition, the diagram used to represent the collaborative policy making cycle first developed in Chapter Four (see Figure 4.6) can be further developed to show how the social construction of problems drives the remaining stages of the policy cycle. In Figure 8.1, an outer circle has been added to the collaborative policy making cycle, and within this arrows show the construction of the problem driving progress through each stage of decision making.

Figure 8.1: The Collaborative Policy Making Cycle, Revised



Source: Author

A further conclusion that can be drawn from examining the social construction of coastal planning regimes and the way they progress through the collaborative policy making cycle is about the power relations attached to definitions of problems. In Chapter Two, the work of Foucault (1972) was drawn upon in exploring how powers exercised through the use of language may reinforce dominant discourses and social practice, and this is clearly evidenced in the way that the definition of water quality problems by the European Union structures a top-down policy response in the form of Water Framework Directive 2000/60/EC.

On the other hand, where there is no clear definition of the coastal problem, such powers are dispersed – whilst this has benefits for coastal partnerships in that they are able to set their own agendas and build networks from the bottom up, the absence of a more powerful stakeholder (such as national government) in the problem recognition stage also limits access to power in later stages of decision making. This is demonstrated by the references interviewees made to the role of DEFRA in ICZM, and the fact that clearer guidance from DEFRA on the role of coastal partnerships or the

implementation of ICZM was considered desirable. Thus the collaborative policy making cycle, in presenting a normative set of criteria for an open and democratic process of decision making, also serves to expose dominant structures of power which may adversely affect attempts at consensus building and collaborative working.

A final conclusion of this section concerns the applicability of the collaborative policy making cycle to other problems or policy regimes. In Gray's original series of conditions facilitating inter-organisational collaboration (1985), Gray concludes that "collaboration is a viable and necessary approach to confronting many complex problems faced by our society. Constructive response to problems such as declining industries, acid rain and others which affect multiple sectors of society require analysis at the domain level and the pooling of information and resources amongst various stakeholders" (1985:931), but that further comparative studies are necessary to understand how each of these conditions contributes to successful collaboration in different settings (Ibid, p932). Therefore the research undertaken here using Gray's propositions represents further testing of these conditions in three settings simultaneously, the only drawback of the approach being that as the Dee River Basin Management Plan and Marine Planning are still at an early stage of implementation, the collaborative policy making model as a whole is more suited to examining planning regimes that have been through at least one complete iteration of the policy cycle.

In appending Hannigan's prerequisites for the social construction of environmental problems, it may be considered that this adapts the Gray model specifically for use in situations that have a distinct spatial or environmental dimension. This may be true to a certain extent, given that the construction of environmental problems is in large parts reliant on scientific evidence and the ability to communicate scientific findings in an effective manner through popularisers, the media or symbols, however the prerequisites outlined by Hannigan (1995) are largely generic in character and thus adaptable to problems outside the environmental sphere.

8.4 Recommendations

The final objective of this thesis was *to evaluate how collaboration is embedded within the plan making processes of coastal organisations and provide recommendations as to how collaborative policy making may be improved*. The first part of this objective was addressed in Chapter Seven in presenting and analysing the findings of the second phase of empirical research, that is, the case study research on the Marine Spatial Planning Pilot, Dee River Basin Management Plan, Severn Estuary Partnership, Dorset Coast Forum and the East Grampian Coastal Partnership.

In Chapter Seven it was found that for each of the three planning regimes examined, the social construction of the problem, whether coastal, marine or catchment structured the decision making process, and thus the extent to which the conditions facilitating collaboration are present or absent. Subsequently for RBMP, the high level nature of problem definition and decision making means there is an absence of negotiation and consensus building. In Marine Planning joint information searches (in the form of the MSP Pilot), has facilitated a greater consensus on the nature of the problem and consensus on Marine Planning as a solution to the marine problem. Finally for ICZM, the ambiguous definition of the coastal problem and the uneven distribution of powers between stakeholders leads to higher levels of collaboration at local level, but weak links between local and national levels of governance, which has hindered more formalised and powerful arrangements of stakeholders implementing solutions (hence the "implementation failures" identified in Chapter One).

In providing recommendations as to how collaborative policy making may be improved, it is helpful to return to the references made in Chapter Two about the ways in which notions of the coastal zone can be constructed in terms of biophysical and policy definitions. In particular, Cicin-Sain (1993) suggests that coastal/marine zones can be differentiated along a spectrum of property and government interests, with the governance of inland waters dominated by local level institutions and private property interests, whilst in the offshore and high sea zones, public interests and international governance regimes prevail (see Figure 2.2, reproduced below).

This comparison of coastal governance interests along the continuum of private-public property also serves to highlight an important relationship between different levels of governance, stakeholders and "ownership" in the sense of engagement in coastal planning regimes. Ownership in the decision making process encompasses a number of characteristics that were identified in communicative planning by Healey (1992), including the ability of stakeholders to have their opinions heard respectfully and to contribute to developing solutions, and thus is directly linked with Gray's proposed condition of positive beliefs about outcomes in collaborative arrangements (see Gray, 1985).

Figure 2.2: Nature of Property and Government Interests and Institutions in Coastal/Ocean Areas

<table>
<tr><td></td><td colspan="5">Coastal ocean spectrum</td></tr>
<tr><td></td><td>Inland areas</td><td>Coastal lands</td><td>Coastal waters</td><td>Offshore waters</td><td>High seas</td></tr>
<tr><td>Nature of Property</td><td>Private</td><td>Private/public</td><td colspan="3">Predominantly public</td></tr>
<tr><td>Nature of government interests</td><td>Local/provincial</td><td colspan="2">Mix of local/provincial/ national</td><td>Mainly national</td><td>Mainly international</td></tr>
<tr><td>Nature of government</td><td colspan="2">Multi-purpose agencies</td><td colspan="3">Single-purpose agencies</td></tr>
</table>

Source: Cicin-Sain (1993:28)

For Marine Planning, the MMO represents a departure from Cicin-Sain's (1993) continuum in that as a body representing a mix of regional, national and international interests, the MMO will also be a multiple-purpose agency, and this reflects the construction of the marine problem in terms of a lack of integration between sectors and government departments.

For RBMP, the nature of RBMP implementation stands in complete contrast to Cicin-Sain's continuum, with international and national government (top-down) interests dominating ownership of catchment problems and solutions, where it is expected that ownership should be greatest in local stakeholders and local government agencies. The findings from the Dee RBMP case study show that this is not the case, with several interviewees regarding decision making for RBMP as taking place at a higher strategic level than the individual river basin, and thus limiting engagement and ownership of the RBMP process at local levels.

For ICZM, Cicin-Sain's (1993) continuum of interests and governance represents a fair approximation of ICZM practice in the UK, whereby numerous short-term projects foster the ownership of activities aimed at resolving coastal problems by local coastal stakeholders. However the division between land and marine sides of the coastal zone, and the weak link between local and national levels of government fails to reflect the mix of interests suggested by Cicin-Sain, and thus ICZM activities may lack the strategic coherence that can be provided by a degree of coordination originating at the national level.

Bearing these points, and the earlier conclusions about the social construction of environmental problems and collaborative policy making in mind, the following recommendations are made to assist collaborative efforts in coastal governance. Some of the recommendations are generic, and some relate specifically to ICZM. The recommendations relate to two main themes - first, clarifying "problems" and second, increasing use of collaborative approaches.

Clarifying "Problems"

In Chapter Four, reference was made to the work of Schattschneider (1960) and Stone (2002), who both identify that those groups who are able to identify a problem are subsequently able to shape solutions to fit their own interests. In relation to this, the social construction of coastal, marine and catchment problems has been found to be fundamental to subsequent phases of decision making**.**

Evidence from the case studies shows that problems in interpreting and communicating complex, sometimes technical data, can disenfranchise stakeholders at an early stage of the policy cycle, as is evidenced by the comment that "*There's a lot of information gathering going on, but combining that into anything meaningful is not happening, or it doesn't seem that it is possible to find a simple digest" (p187),* and the case of River Basin Management, where reports on water body classification were described as being aimed at the *"professionally interested" (p188)* and inaccessible to a wider audience. In addition, data must be appropriate to the scale of the plan area or jurisdiction of stakeholders to ensure that it is relevant and meaningful to stakeholders "on the ground". Thus the following propositions are made:

Recommendation 1: Clarify data needs

> *This has relevance to all three planning regimes, but is particularly aimed at coastal partnerships and those organisations which have links with coastal partnerships, such as DEFRA, the MMO and Natural England.*
>
> In the case study interviews it was stated that *"getting people... to agree which indicators might be used to identify sustainable practice appears to be very difficult"* (p??).
> ThereforeStakeholders should give greater consideration to selecting a small number of data sets out of the many data sources that are available, and also identify additional sources of information they may need to better understand existing and potential problems. This would

enable more robust claims for action to be made regarding newly discovered problems, or provide a stronger evidence base to justify management decisions within an existing policy framework.

Also, in embarking on any data collection exercise, organisations with powers in relation to data collection and monitoring should consider a scoping or pre-consultation exercise which allows other stakeholders to outline what information would be most useful for them.

For coastal partnerships, entering into this debate could require some negotiation to engage other data collecting organisations in a joint information search of the type elucidated by Gray (1985) as part of consensus building. However, such arrangements can be mutually beneficial in terms of drawing new stakeholders and resources into collaboration and also facilitating the creation of new information, either by interpreting information in a new way, or constructing entirely new data sets.

Whilst it may not be possible to guarantee the feasibility of meeting information requests, however this would allow stakeholders an early opportunity to outline their concerns, and in attempting to reach consensus about what information should be collected, this may facilitate further agreement about the nature of the problem.

Recommendation 2: Communicate messages in simpler terms

This is relevant to coastal partnerships and river basin management.

As has been explained above, the sheer volume environmental data being produced can be problematic for distilling simple messages, and also the technical nature of some of this information as shown in the case of River Basin Management is unhelpful to a broader audience of stakeholders. The findings of Chapters Three and Six on the social construction of problems found that communication through visual and symbolic means, for example through the media and negative news stories featured less prominently in constructing claims in the case studies, despite being a fundamental part of Hannigan's model of social construction.

This finding does not preclude communication in symbolic and visual terms, however, and thus following on from Recommendation One (above) which advocates a more selective approach to data use, communicating technical data in more simple, understandable terms, using a "report card" format may be appropriate. This could incorporate ideas such as a traffic light system to

signify good, average and bad situations (for example in water quality or monitoring beach litter) alongside short explanations of key messages that can help stakeholders to recognise issues that must be prioritised.

Specifically in relation to ICZM, reference has been made by interviewees to "State of the Coast" reports that have either been produced (for Dorset Coast Forum) or are in preparation (for East Grampian Coastal Partnership and Severn Estuary Partnership). These reports reflect local concerns and priorities, and thus there may be great variation in content from one report to another. However, a standard template for "State of the Coast" reports focused on a small number of key indicators would allow an aggregation of data from multiple areas that could feed upwards into national policy making, giving a greater role to coastal partnerships in helping to design and deliver coastal policy.

Increasing Use of Collaborative Approaches

Gray (1985) notes that *"inability to achieve the appropriate conditions during each phase [of collaboration] may be the best source of explanations to date for why collaborative efforts fail"* (1985:932) and in the findings of Chapter Seven it was found that another of the reasons why there may be lower levels of engagement from some sectors in collaboration is because shared beliefs about outcomes or the benefits of collaborative working are not present. Many benefits of collaborative working, including "improved decision making" and "more coherent spatial planning" are intangible and thus hard to communicate, therefore the following recommendations are made:

Recommendation 3: Adopt the Collaborative Policy Making Model

This is relevant for River Basin Management and Marine Planning.

Whilst section 7.2 showed that in most cases partnership working had been proposed for their respective regime, and for ICZM had become embedded in ways of working, there are still some major barriers to be overcome for RBMP and marine planning in terms of identifying a broader set of stakeholders (see section 7.2.2 - with the general public being absent from consultations), negotiating core goals (a particular problem for RBMP, where there has been a perceived lack of negotiation - section 7.3.2) and achieving a greater dispersal of powers between stakeholders (section 7.3.3). These issues may resolve themselves as river basin and marine planning

progress and become more familiar ways of working, however all stakeholders can gain further insights into the steps needed to achieve a more collaborative style of working through understanding the process of collaboration as it is articulated by Gray (1985), the Audit Commission (1998) or the collaborative policy making cycle contained within this thesis.

Having an awareness of progress through the policy cycle will thus help stakeholders to identify what conditions should be in place - and which conditions are not - at each stage of decision making. This will enable efforts to be redirected at facilitating the conditions that are conducive to collaborative working, for example it may be necessary to find new ways of articulating the benefits of partnership working to ensure that the widest possible range of stakeholders become involved.

Recommendation 4: Acknowledge collaboration as an adaptive, learning process

This is relevant to coastal partnerships, river basin management and marine planning.

Healey's characteristics of communicative planning include "Development of reflective capacity to evaluate the communicative process" and "A starting point for a continually evolving process of building shared understanding and desired outcomes" (Healey, 1992: 154-6). Taking the findings of section 7.4 and 7.5 which examine decision making and implementation, it can be seen from the relatively low levels of agreement on whether coordination has been achieved (Figure 7.10) and the mixed responses to the questions of having a legal framework in place (Figure 7.14) and the allocation of responsibilities (Figure 7.15) that current arrangements for ICZM, Marine Planning and RBMP have potential for a great deal of improvement.

Therefore it must be assumed that stakeholders cannot create perfect collaborative conditions first time and may need to be pragmatic in working with less than ideal situations to begin with. However, adopting a collaborative approach to policy making can foster improved governance through filling information gaps, increasing horizontal and vertical integration of organisations and policy initiatives, sharing examples of best practice and evaluating and refining decision making processes.

Finally, some comments must be made on the integration of the coastal governance regimes that have been the subject of this thesis. As noted in Chapter Seven, many of the findings related to later stages of the collaborative policy cycle were based on speculative views about the implementation of RBMP, Marine Planning and an uncertain future for ICZM in the face of new arrangements for

Marine Planning. However one thing that may facilitate collaboration in all cases is greater consideration and coordination with the other planning regimes. In particular, the lack of coastal representatives on the Dee River Basin Liaison Panel has been noted in collaborative arrangements, and the division of land and seaward sides in defining the coastal problem have been cited for the ambiguous position of ICZM. Furthermore, the weak links between coastal partnerships and more formal bodies have been identified as central to “implementation failures”, however as there is no statutory body with responsibility for the coastal zone, coastal partnerships should look to both Marine Planning and River Basin Management as opportunities to build stronger alliances.

The coastal zone may be a peripheral area for both river basins and the marine zones; however a partnership of inland water, coastal and marine interests could deliver much greater benefits for coastal sustainability.

8.5 Reflections on the Methodology

In this conclusion chapter, the use of social constructionist and collaborative theories as a methodology have been considered separately, and therefore this set of reflections is concentrated on more practical aspects of the methodology used. In undertaking this research, it was identified that in order to investigate the social construction of coastal problems and understand how this influences coastal planning in practice, two phases of empirical research would be required. The first, comprising of a literature review tracing the development of coastal planning through John Hannigan's (1995) model for the social construction of an environmental problem, is contained within Chapter Three. Besides the comments made earlier in this chapter regarding the findings of Chapter Three, this first phase of empirical work provided a sound theoretical basis on which subsequent chapters could be built, but also represents an exercise that could feature as a standalone piece of research in its own right, demonstrating the usefulness of the social constructionist approach for understanding the development of environmental policy regimes.

For the second phase of empirical research, the case study approach was much more problematic, and these issues are addressed here. The main problems encountered in undertaking the case study research revolve around the issues of:

1. Communication with case study organisations – in terms of key contacts or gatekeepers, selecting interviewees and questionnaire distribution, and
2. The structure of the questionnaire.

In the first instance, Chapter Five describes how, once each case study was selected, contact was established with a key individual or gatekeeper in the case study organisations in order to gain endorsement of the research and provide access to interviewees and questionnaire respondents. Whilst it was felt that approaching an individual with a formal role in the day to day workings of the case study organisation such as a partnership officer was appropriate in terms of going through "official" channels, this route into the organisations is not without its own set of problems. As was pointed out in Chapter One, many coastal partnerships have suffered due to a rapid staff turnover and what McGlashan (2002) terms a loss of "corporate memory". This being the case, partnership officers may not have been the most suitable gatekeeper for accessing interviewees, in particular those who have not been working with their organisation since its formation (or for an extended period of time). More recently appointed officers may lack the knowledge of which individuals can provide the most useful information regarding the history of the organisation, personnel and projects, or understanding of the organisation's place in the wider context of coastal planning

regimes. In a similar vein, partnership officers were considered to be suitable candidates for interviews because of their assumed knowledge, however their perspectives on the organisation they work for may be a reflection of their own roles and responsibilities at a particular point in time and not free from bias.

With these points in mind, an alternative key contact or gatekeeper is suggested here as being the chairman of the organisation (although it is noted that no such position existed for the MSP case study). For reasons of ethical practice and courtesy, it remains necessary to seek the consent and support of partnership staff, however the main advantages of using the chair as a gatekeeper would be that they possibly have a greater knowledge about the organisation, and rather than soliciting interviewees through an email distributed by the partnership officer, the chair may be able to advise more comprehensively on the suitability of other potential interviewees. This would facilitate a more rounded set of interviewees to be targeted than is the case when dependent upon responses to a generic email or letter, and through further personal contact a greater number of interviews may have been possible.

The disadvantages of relying upon one key contact also manifested in the relatively low response to the online questionnaires. Whilst it is widely known that administering surveys by mail (electronically or physically) can yield low results, attempts to target the wider membership of the ICZM case studies were adversely affected by data protection and privacy issues, in that some partnership staff were unable to send an emailed invitation to the online questionnaire on behalf of the author through their mailing lists. In these cases, a link to the questionnaire was placed on the case study organisation's own website, and although the exact number of responses obtained from these web links can only be estimated, it is assumed that they account for less than 5% of the total responses. Therefore as a strategy to obtain further data that would complement the questionnaire responses from interviewees, this method proved unsuccessful. The low overall response rate also meant that in Chapters Six and Seven, descriptions of questionnaire responses could only be referred to in terms of "high" and "low" levels of agreement as the true figures were judged to be insufficient for quantitative analysis.

As with accessing interviewees, a more personal approach to collecting questionnaire responses could have been taken. In conducting the case study research, the author attended a number of partnership meetings, forums and events where potential questionnaire respondents were present, and these occasions could have been used to distribute and collate questionnaires by face to face methods. This would have removed the emphasis on the online questionnaire as the main method of gathering responses, and enabled a better balance to be maintained in terms of number of

responses from each organisation which was not possible using the email invitation or web link options.

A second set of problems encountered in undertaking the case study research was regarding the structure of the questionnaire. In Chapters Six and Seven, the questionnaire results display a significant number of "don't know" responses to some statements, in particular in Section 3 of the questionnaire, which asked about experimentation in policy and institutional design and the dispersal of power between stakeholders. The number of "don't know" responses suggests that some questionnaire respondents did not understand what the statement was asking, and that more care should be taken to ensure that the use of academic or abstract language is avoided.

8.6 Further Research

Whilst this thesis explores collaboration and ICZM implementation in the UK in some depth, it must be acknowledged that this represents only one aspect of ICZM and the broader topic of coastal and marine governance. Thus there are several potential avenues for investigation which may build upon the work undertaken here, and some suggestions for further research are now outlined below.

A first possibility for further research is related to the use of science and scientific evidence by coastal partnerships. Throughout the thesis, the use of scientific evidence has been highlighted as crucial for the social construction of claims about a coastal, marine or catchment problem, and research has shown that data may not be available in the right format (i.e. not at a scale appropriate to local needs, or not covering the land and seaward sides of the coastal zone together) or that decision makers may lack the capacity to interpret complex data. Stojanovic *et al* (2009) describe one way in which these problems may be overcome in coastal partnerships through the use of research networks, or more specifically developing research strategies – *"multi disciplinary programmes of applied research to support policy making and management decisions"* (Stojanovic *et al,* 2009:902), through setting priorities for research, identifying information gaps and future research needs in order to assist management decisions.

Such research networks may be beneficial to coastal partnerships in discovering and improving understanding of scientific data, and therefore future research may consider how research strategies and networks can contribute to consensus building – whether this is helping to build a more common social construction of problems through the communication of evidence and comparing

this with coastal partnerships where no such strategy is in place. Stojanovic *et al* (Ibid) note that research agenda initiatives *"have achieved various levels of success and longevity"* (p909), and so further research on this theme would also provide an opportunity to consider if the research agenda idea has been taken up more widely since the original study.

A second area for further exploration, also linked to the social construction of problems, focuses on the valuation of ecosystem goods and services. Earlier in the thesis (in chapters Three and Seven), attention was drawn to the lack of clearly articulated or weak economic arguments for coastal planning regimes, with DEFRA's *Marine Nature Conservation Proposals – Valuing the Benefits* report (DEFRA, 2008a) highlighted as an example of the ecosystem goods and services approach to placing a monetary value on the supply and benefits of natural resources. Whilst ecosystem valuation is a relatively new tool to aid decision making, and like other types of environmental information may be inexact or at a scale too broad for meaningful individual initiatives, the growing use of this technique raises possibilities to investigate how economic arguments could play a more fundamental role in the construction of environmental problems and drive new solutions.

A final area for further research may be a comparative study of collaboration and ICZM implementation in other European countries. Such a study could focus on other EU Member States where there is a voluntary approach to ICZM implementation and examine how conditions facilitating collaboration are being met in a context where the pressures and drivers for ICZM may be different. For example in Italy, at the time when Member States were due to report on their national stock takes of ICZM in 2006, it was noted that there was no national strategy in place and that implementation was hindered by the highly decentralised nature of government (Rupprecht Consult and IOC, 2006:152). A comparative study could also consider collaboration in those Member States where there are greater top-down pressures or obligations to undertake ICZM such as in Spain, where the *1988 Shores Act*, *1989 Law for the Protection of Nature Areas* and the recent signing of the ICZM Protocol of the Barcelona Convention are key drivers for coastal management both within Spain and at a transnational level (de Vivero and Mateos, 2005).

8.7 Final Conclusions

These final remarks consider how the thesis as a whole has contributed to the research aim, which was *to critically assess the implementation of ICZM in the wider context of coastal planning regimes, in order to develop a more effective model of collaboration for coastal governance.*

In undertaking this research it was therefore decided to compare the implementation of ICZM with practice in River Basin Management Planning and the Marine Spatial Planning Pilot. Whilst it is acknowledged that there are many other plans and management tools that contribute to the overall framework of coastal management (such as Shoreline Management Plans, terrestrial spatial planning and nature conservation designations) and that these too would have been in some way suitable for comparisons, Marine Planning and RBMP were chosen to reflect different spatial dimensions of the coastal zone and different layers of governance, including the national and international.

Throughout the thesis it has been argued that the implementation of ICZM (and other coastal planning regimes) is founded on the social construction of environmental problems, and the outcomes of this research demonstrate clearly that where powerful stakeholders are able to define the problem, as is the case in RBMP, then they are also able to dominate the subsequent stages of the policy cycle, which in turn has implications for the degree of collaboration and stakeholder engagement that may be possible in developing and delivering solutions. In contrast, the definition of ICZM was found to be vague, and thus there is a coalescence of stakeholder interests around local issues, but a lack of overall direction for more strategic levels of coastal policy making.

Also in examining the social construction of environmental problems, it has been possible to provide a critique of John Hannigan's (1995) model for the social construction of environmental problems. Having identified shortcomings in terms of the model's ability to differentiate between prerequisites which are most influential in framing environmental problems, the empirical work of this thesis has shown how different combinations of "weak" or "strong" prerequisites also shape decision making processes. Furthermore, the model's lack of explanatory power in relation to the move from problem definition to implementation of a solution has been addressed through appending Hannigan's propositions with a series of propositions suggested by Barbara Gray (1985) that facilitate inter-organisational collaboration.

This new model of collaborative policy making therefore provides the foundations for a more effective form of coastal governance. As the recommendations of this thesis have already stated, developing a deeper understanding of the nature of the problem to be addressed can facilitate greater engagement of stakeholders in decision making processes. This sense of ownership in the decision making process can thus help to maintain shared consensus and encourage learning between stakeholders, thus helping to increase the combined powers of stakeholders in collaborative arrangements.

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APPENDICES

Appendix A: List of Coastal Organisations in the UK

In the following table listing coastal organisations in the UK, the following abbreviations have been used:

Administered by/host:
AONBP – AONB Partnership
C – County Council
CC – Charitable Company
CP – Country Park
HA – Harbour/Port Authority
LPA – local planning authority
R – Regional government
RC – registered charity
SR – Sub regional government
US – Secretariat within university/academic institution

Use of ICZM/Other designations
AONB – Designated Area of Outstanding Natural Beauty
CG – Coastal Group (Shoreline Management Planning)
HC – Designated Heritage Coast
N – ICZM neither promoted nor used
N2K – Natura 2000 site
P – ICZM promoted
SAC – Special Area of Conservation
SPA – Special Protection Area
U – ICZM used

Structure
AG – Advisory Group
CG – Coordinating Group
Con.C – Consultative Committee
Coun. – Council of Members
F – Forum (annual or other frequency)
FG – Funding Group
JAC – Joint Advisory Committee
LG – Liaison Group
MC – Management Committee
MG - Management Group
M/PB – Management/Partnership Board
SbG – Sub/working groups
StG – Steering Group
PAS – Secretariat within planning authority
T - Trustees
TG – Task Groups
UG – Users Group
?? Denotes information not found

ENGLAND						
Organisation name	**Established**	**Administered by**	**Use of ICZM**	**Structure**	**Plans/Strategies**	**Other**
Action Mersey Estuary[10]	≈1992	RC	N	StG, SbG,	Contributed to Mersey Estuary Management Plan	Wound up 2007
Action Ribble Estuary	1992	RC	N	StG, AG, UG	Ribble Estuary Strategy, 1997	Joined with Mersey Basin Campaign, wound up 2010
Action Wirral Rivers	≈1992	RC	N	StG, SbG	Action Plan	-
Alde & Ore Estuary Planning Partnership	2003	LPA	AONB	StG	Alde coast and Estuary Strategy (ACES)	Alde and Ore Futures Project
Atlantic Living Coastlines Project	1996	SR	U, P	StG	-	EU ICZM Demonstration Project, report on sustainability indicators
Avon Estuary Conservation Forum	??	AONBP	AONB	F, TG	Management Plan 2002-07, 2009-14 plan in preparation.	-
Blackwater Project	??	??	??	??	-	No evidence of activity, possibly wound up 2005
Bournemouth Seafront Forum	??	LPA	??	??	Seafront Strategy, 2006	No Bournemouth Seafront Forum found, Business Forums proposed on Bournemouth Council website
Charmouth Heritage Coast Centre	1985	RC	HC	??	-	Tourist attraction, part of Jurassic Coast WHS
Chichester Harbour Conservancy	1971	AONBP/HA	AONB, U	JAC, SbG	Management Plan 2009-14	-
Cleveland Way Project	(1969)	SR	N	??	n/a	National Trail

[10] The Action partnerships (Mersey Estuary, Ribble Estuary and Wirral Rivers) were all projects of the Mersey Basin Campaign

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Colne Estuary Partnership	1999	LPA/US[11]	??	MG, AG	Management Strategy not found	Part of Essex Estuaries EMS
Crouch & Roach Estuary Partnership	2003	LPA	U	StG, F	Estuary Management Plan	Part of Essex Estuaries EMS , no evidence of activity since 2006
Dart Estuary Partnership/Dart Estuary Environmental Management	≈1997/ 2004	??	AONB, P	StG, F	Environmental Management Plan	Wound up 2007, some activities continued by S Devon AONB
Dee Estuary Strategy	1992	LPA	??	??	Agenda for Action, 1998, Business Plan, 1999	No evidence of activity post 2000
Devon Maritime Forum	2005	C	U, P	StG, TG, F	Strategic Overview, Business model, Action Plan	-
Dorset Coast Forum	1996	C	U, P	StG, SbG, F	Dorset Coast Strategy, 1999	C-Scope Project, World Heritage Site
Dorset and East Devon Coast World Heritage Site (Jurassic Coast)	2001[12]	??	U	StG, AG, SbG	WHS Management Plan 2009-2014	-
Druridge Bay Partnership/Country Park	2006	C	??	StG	Druridge Bay Strategy 2006-2010	-
Duddon Estuary Partnership	1992	C	U	Con.C, SbG, TG	Strategy (1998)	Ramsar, SPA, SAC
Durham Heritage Coast	2003[13]	C	HC, P, U	StG, TG	Business Plan, Management Plan	

[11] Originally a partnership between Colchester and Tendring Councils with Natural England, now administered by Brightlingsea Harbour Commissioners and University of Essex.

[12] This is the date World Heritage Site status was designated

[13] Heritage Coast designated 2001. Current organisation a successor to the Durham Heritage Coast "Turning the Tide" Millennium Project .

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Durlston Marine Project	1970s[14]	CP	??	??	-	Part of AONB and Purbeck Heritage Coast
East Riding Coastal Forum	≈2002	LPA	U	??	ICZM Management Plan, 2002	No evidence of activity post 2005
Erme Estuary Management Advisory Group	≈2002	AONBP	AONB	AG	Management Plan 2003-08	-
Essex Estuaries Initiative	≈1994	C	EMS	??	-	Constituent groups (Crouch and Roach, Blackwater, Colne) functioning independently
Exe Estuary Management Partnership	1992	C	U	MG, WG	Management Plan 2006-2011	-
Exmoor Heritage Coast	??	??	HC	??	-	Part of Exmoor National Park
Falmouth Bay and Estuaries Initiative	1992[15]	C	??	??	Management Plan, 1997	No evidence of activity found post 2001, Fal-Helford SAC managed by Cornwall Council
Flamborough Head Heritage Coast	1979	LPA	HC	AG	Flamborough Management Strategy, 2007	SAC, EMS
Fowey Estuary Partnership	1997	??	N/?	AG, SbG, F	Management Plan 1997, reviewed 2003	-
Hamble Estuary Partnership	2003	HA	U	StG, SbG, F	Estuary Management Plan, 2003-08	-
Hampshire Coast	-[16]	C	U	PAS	Coastal Strategy, 1991	Contribution to Solent Forum and EMS, Rural Pathfinder (streamlined consents, harbours)

[14] Durlston Country Park Established in the 1970s. No date for initiation of the Marine Project found.
[15] Part of English Nature Estuaries Initiative
[16] Part of Hampshire County Council

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Hamstead and Tennyson Heritage Coasts	1974	C	AONB, HC	StG, AG, SbG, F	Management Plan, 1986	Managed as part of Isle of Wight AONB since 1992
Humber Estuary Industry Nature Conservation Association	2000	Reg. Co.	??	Core team, partners	-	SONET Report (with Tees INCA)
Humber Estuary Partnership	??	??	??	-	-	Information not found
Humber Management Scheme	2005	??	N	Relevant Auth. Group, AG,	Management Scheme, 2005, Business plan 2008-2010	European Marine Site
Irish Sea Forum	1990	US	P	??	-	Wound up 2006
Isle of Wight Estuaries Project	??	C	U	Co. Council	Medina Estuary Management Plan, Western Yar Management Plan	-
Kent Coastal Network	2004	C	??	SbG, F	-	Register of projects by other organisations
Lundy Island Marine Nature Reserve	1986	??	U	MG, F	-	No Take Zone, Marine Conservation Zone
Medway Swale Estuary Partnership	2002	C	N	Unclear	Vision, Strategy	Recreational Disturbance study with Natural England
Mersey Basin Campaign	1985	RC	N	Coun., AG,	Mersey Estuary Plan, 1995	Wound up 2010
Morecambe Bay Partnership	1992	RC	U, P	MB (trustees)	Strategy, 1996,	EMS secretariat, SPA, SAC
Norfolk Coast Partnership	1991	AONBP	??	MG, F	Management Plan 2004-09, 2009-14	Heritage Coast
North Cornwall Heritage Coast and Countryside Service	??	C	HC	Unclear	-	Heritage Coast

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
North Devon AONB Partnership	2004	AONBP	AONB	Partnership Committee	Strategy 2004-09	-
North West Coastal Forum	2000	R	Y	MB, SbG, F	Coastal Communities overview	NW Coastal Trail
North Yorkshire and Cleveland Coastal Forum	2002	SR	U	SbG, F	Coastal Forum Strategy, Biodiversity Plan	Heritage Coast Plan
North Yorkshire and Cleveland Heritage Coast	1974	Managed by N Yorkshire and Cleveland CF	HC	SbG	Draft management plan, 2007-12	Part of N Yorkshire National Park
Partnership of Irish Sea Coast and Estuaries (PISCES)	??	??	??	??	Review of Coastal Initiatives in the North West	Inactive since 2003
Poole Harbour Steering Group	??	LPA	??	See footnote[17]	Aquatic management plan	European Marine Site
Ravenglass Coastal Partnership	≈2006	LPA	??	??	-	SAC, SSSI
Romney Marsh Countryside Project	1996	See footnote[18]	??	??	-	Awareness raising for local area through leaflets, trails, countryside stewardship projects
Rye Bay Countryside Project	≈1996	??	??	??	-	No information found: Rye Bay Countryside Office part of LPA
Salcombe-Kingsbridge Estuary Conservation Forum	??	AONBP	AONB, HC	F, ?	Management Plan 2005-2010 under review	-

[17] Steering Group made up of Borough of Poole, Dorset County Council, Natural England, Environment Agency, Poole Harbour Commissioners, Purbeck District Council, Southern Sea Fisheries District Committee and Wessex Water Services Ltd.
[18] Managed by White Cliffs Countryside Partnership

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Sefton Coastal Strategy Unit	??	LPA	??	??	-	-
Sefton Coast Partnership	1978/2001	LPA	U, P	PB, CG, TG	ICZM Plan, Management Plan	Preparing SMP
Severn Estuary Partnership	1995	US	U, P	MG, JAC, F	Severn Estuary Strategy	Preparing SMP
Solent EMS	2000	C[19]	N	AG, SbG	Management Scheme	SAC, SPA, Ramsar site
Solent Forum	1995	C	U, P	StG, SbG, F	Strategic Guidance, 1997, State of the Solent Report	Towards Solent Marine Planning (SoMaP)
Solway Coast AONB Unit	1964[20]	AONBP	??	JAC	Management Plan 2004-09	Dune habitat restoration project
Solway Firth Partnership	1994	Charitable Co	U, P	T, AG, SbG, F	Strategy, Business Plan	-
Solway Rural Initiative	1992	Ltd Co.	??	??	-	Wound up 2006
South Devon AONB Partnership	2003[21]	LPA/C	AONB, HC	Partnership Committee, FG, AG	Management Plan 2009-14	-
Spurn Heritage Coast	??	??	HC	??	Spurn Management Strategy	SPA, Ramsar site
St Agnes Heritage Coast	??	C	HC	unclear	-	-
St Bees Heritage Coast	??	LPA	HC	unclear	-	-
Stour and Orwell Estuaries Management Group	≈1992	C	AONB	MG, F	Management Plan, 1996, Management Scheme 2003	SPA, European Marine Site

[19] Solent EMS secretariat is provided by the Solent Forum
[20] Date of AONB designation
[21] Heritage Coast designated in 1986, first AONB Joint Advisory Committee established 1992

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Suffolk Coast Futures	≈2008	LPA	U, P	Unclear	-	Alde and Ore Futures project, Coastal Change Pathfinder
Suffolk Coast and Heaths Partnership	1970	AONBP	U, AONBP	Unclear	Management Plan 2008-13	-
Tamar Estuaries Consultative Forum	1994	LPA	U	F, SbG, LG, AG	Management Plan, 1997, 2001 and 2006-12	-
Taw Torridge Estuary Forum	1980	LPA	N	SbG	-	UNESCO International Biosphere within Forum area
Tees Estuary Industry Nature Conservation Association (INCA)	1988	Reg. Co.	??	Core team, partners	-	State of the Natural Environment of the Tees Estuary (SONET) Report
Tees Estuary Management Partnership	??	??	??	??	-	Not found; see Tees Estuary INCA
Teign Estuary Partnership	≈2000	LPA	U	StG, F	Estuary Management Plan	Cycleau river basin management project
Thames Estuary Partnership	≈1993	RC	U	MG, T, SbG, F	Management Guidance, Thames Strategy East, Habitat Action Plan	Habitat and Species audit, Discovery Programme (heritage)
Thanet Coast Project	2001	LPA	??	MG, AG	Management Scheme 2007	European Marine Site
Torbay Coast and Countryside Trust	2000	RC	??	T	Strategic Plan 2002-12	Green infrastructure project, cultural heritage project
Torbay Marine Partnership	??	??	??	??	-	Information not found
Wash Estuary Strategy Group	1994	unclear	P, U	SbG	Estuary Management Plan, 2004	European Marine Site, Ramsar site
Wear Estuary Forum	??	??	??	??	-	Information not found
Western Yar Estuary Management Committee	≈1995	C/HA	U	LG, MC	Management Plan, 2004	SPA, SAC, Ramsar

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Wirral Coastal Partnership	2007	LPA	??	??	-	No further information found
Yealm Estuary Management Group	≈1997	AONBP	AONB	MG	Management Plan 2007-2012	SACs in management area

WALES						
Organisation name	**Established**	**Administered by**	**Use of ICZM**	**Structure**	**Plans/Strategies**	**Other**
Anglesey Coastal Path Project	??	C	N	??	-	Campaigning for National Trail Status
Ceredigion Marine Heritage Coast	1992[22]	C	HC	??	-	-
Coed Cymru Ynys Mon	1989	RC	N	??	-	Archaeology project
Conway Estuary Users Group	??	??	??	??	-	-
Glamorgan Heritage Coast Project	??	C	??	-	-	-
Millennium Coastal Park	??	C	??	??	-	-
North Wales Coastal Forum	??	??	??	??	-	-
Pembrokeshire Coastal Forum	2000	SR	U, P	StG, SbG	ICZM Framework, 2005	Input into Wales Spatial Plan by Pembroke Havens Delivery Steering Group (PHDSG) on links with Ireland
Wales Coastal Forum	??	??	??	??	-	-
Wales Coastal and Maritime Partnership	2002	N	U, P	AG	Coastal tourism Strategy, 2008	Input into Marine and Coastal Access Act, advise to WAG on ICZM review

[22] Original Heritage Coast designated in 1982, extended 1Nm seaward in 1992

SCOTLAND						
Organisation name	**Established**	**Administered by**	**Use of ICZM**	**Structure**	**Plans/Strategies**	**Other**
Atlantic Coast (Wester Ross) Project	2004	LPA	Y	StG, Community Liaison Group	Integrated Coastal Plan	Project completed July 2006
Berwickshire SSMEI	2006	C	??	StG	Report due late 2010	Fisheries, harbour and visitor management work packages
Clyde SSMEI	2002	Part of Clyde Forum	U	StG	Marine Spatial Plan in draft, final plan due mid-late 2010	Marine Plan to be implemented by Firth of Clyde Forum
Coast Hebrides[23]	2007	LPA	U, P	Research Advisory Group	Coastal Zone strategy in preparation	Coast Care (beach management), Coast Adapt (climate change mitigation)
Cromarty Firth Liaison Group	1992	Part of Moray Firth Partnership	??	??	Management Strategy, Action Plan	-
East Grampian Coastal Partnership	2005	US	U	EG, MG	Business Plan 2007-2010	Making the Most of the Coast Plan, Community Grants
Fair Isle Marine Environment and Tourism Initiative	1996	??	U	SbG	Marine Action Plan	Local Marine Plan as part of SSMEI
Firth of Clyde Forum	1993	CC	U	Core Group, F	Integrated Management Plan and Strategy, 2000	Management Plan superseded by Clyde SSMEI
Forth Estuary Forum	1993	RC	U, P	MG, F	Integrated Management Strategy, 1999, Business Plan	Managed realignment feasibility project, access initiative, litter campaign

[23] Also known as the Outer Hebrides Coastal Marine Partnership

Organisation name	Established	Administered by	Use of ICZM	Structure	Plans/Strategies	Other
Loch Ryan Advisory Management Forum	1997	CC	?	F	Strategy, 1999	No website found, but evidence of existence in 2008
Moray Firth Partnership	1996	RC	U	BoD, Strategic Group	-	SAC, Community Grants, offshore wind consultation
Orkney Coastal Studies Forum	??	??	??	??	-	No information found
Orkney Marine and Coastal Forum	1999	??	U	??	Coastal Management Strategy	No evidence of activity post 2004
Scottish Coastal Forum	1996	N	P	Plenary group	Strategy for Scotland's Coast and Inshore Waters, 2004	Contributions to Marine (Scotland) Act, multiple ICZM research reports
Shetland SSMEI	2006	US	U	StG,	Draft Marine Spatial Plan	-
Sound of Mull SSMEI	2007	C	P, U	WG, LG, SbG	Marine Plan in production, draft published early 2010	-
Tay Estuary Forum	1997	US	P	SG, SbG, F	Management Plan, 2009, Theme Framework, 2000	-
The Minch Project – Loch Torridon	1999	LPA/SR	P	PAS/ unclear	Study in 2007	-
The Minch Project	1996	SR	P	PAS/ unclear	-	inactive
Western Isles Coastal Zone Management Forum	2002	C	U	StG	Harbour Development Plan, erosion survey	No evidence of activity post 2004

Appendix A: Coastal Organisations in the UK

NORTHERN IRELAND						
Organisation name	**Established**	**Administered by**	**Use of ICZM**	**Structure**	**Plans/Strategies**	**Other**
Northern Ireland Coastal Forum	2006	National	P	Committee/ unclear	ICZM Strategy, 2006	-
Strangford Lough Initiative	1992	R/National	SPA, SAC, N2K	MC	SD Strategy, Strategies for SPA and SAC	-

Appendix A: Coastal Organisations in the UK

Coastal Groups (for Shoreline Management Planning)

England

Anglian Coastal Authorities Group
Cornwall and Isles of Scilly Coastal Group
Liverpool Bay Coastal Group
Lyme Bay and S Devon Coastline Group
North Devon Somerset Avon Coastal Group
North East Coastal Authorities Group
North West Coastal Group
Northumberland Coastal Group
Northumbrian Coastal Group
South Downs Coastal Group
Southern Coastal Group
Southeast Coastal Group
South Hams Coastal Group

Wales

Cardigan Bay Forum
Carmarthen Bay and Swansea Bay Coastal Engineering Group
Severn Estuary Coastal Group
Teifi Estuary Environmental Management Initiative
Ynys Enlli to Llandudno Coastal Group

River Basin Districts

Anglia
Dee
Humber
Neagh Bann (N. Ireland/Eire)
North Eastern (N. Ireland)
North West
North Western (N. Ireland/Eire)
Northumbria
Scotland
Severn
Shannon (N Ireland/Eire)
Solway Tweed
South East
South West
Thames
Western Wales

Appendix B: Online Questionnaire

This Appendix shows the pages of the online questionnaire as it appeared to respondents.

The example is taken from the ICZM case studies, but apart from references to coastal (ICZM), marine (MSP) or catchments (RBMP) all questionnaires are identical

Integrated Coastal Zone Management Survey

1. Introduction - Integrated Coastal Zone Management Survey

Welcome to the Integrated Coastal Zone Management (ICZM) survey.

This survey is intended to record your experiences of policy making for Integrated Coastal Zone Management and how this is being implemented.

The survey takes the form of a number of statements - you should answer depending upon the extent to which you agree or disagree. Your response to each statement should be chosen from the list. There is a "Further comments" box at the end of each section if you wish to add anything else related to the answers you have given.

The survey should take approximately 15 minutes to complete.

PERSONAL DATA

In the survey a small amount of personal data is asked for, however these questions are optional and you do not need to fill in the boxes if you do not wish to be identified. If you choose to give this information it will only be seen by the survey author. No personal information will be used in the analysis and reporting of the survey findings.

Integrated Coastal Zone Management Survey

2. Personal Information

1. (Optional) Your name

2. (Optional) Organisation - This could be the organisation you work for or an organisation you are a member of. If you are involved in more than one organisation that may be relevant to coastal issues please use the additional spaces.

1
2
3

3. Length of involvement in coastal issues

- ◯ Less than a year
- ◯ 1-2 years
- ◯ 2-5 years
- ◯ 5-10 years
- ◯ Over 10 years

Integrated Coastal Zone Management Survey

3. Problem Recognition

This section will cover issues related to the recognition of a problem (or problems) in the coastal zone and making a case for doing something about it.

4. There is clear scientific evidence demonstrating that coastal resources are under critical pressure and that new approaches to tackling these problems are urgently needed.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

5. This scientific evidence has received international endorsement at the highest level.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

6. The case for action has been vigorously championed by key individuals/organisations.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

Integrated Coastal Zone Management Survey

7. Media coverage of dramatic incidents such as oil spills has helped to focus the attention of a wider audience on measures to tackle coastal issues.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

8. An explicit economic case for undertaking Integrated Coastal Zone Management (ICZM) has been articulated.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

9. A disparity between the intended and actual outcomes of previous initiatives has contributed to recognition of the need for a new approach to coastal issues.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

Integrated Coastal Zone Management Survey

10. Governmental and non-governmental coastal stakeholders are playing an important role in continuing to highlight problems and potential solutions.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

11. (Optional) If you have any further comments on the issues raised in this section, or would like to cite particular reasons for your responses, please state them in the box below.

Integrated Coastal Zone Management Survey

4. Consensus Building

This section of the questionnaire considers how, once a problem has been identified, stakeholders may begin to work towards developing and implementing a solution.

12. A general consensus on the nature of the coastal problem has been reached between stakeholders.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

13. There has been recognition that the competing jurisdictions and interests of government departments have prevented more integrated measures to tackle coastal issues being proposed.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

14. Partnership working has been proposed as an important step towards achieving coastal objectives.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

Integrated Coastal Zone Management Survey

15. A full range of stakeholders have been included in the discussion of the coastal problem.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

16. (Optional) Further comments

Integrated Coastal Zone Management Survey

5. Exploring Options

This section examines how proposals to deal with coastal issues may be developed and tested.

17. There is evidence of experimentation by key players in relation to policy proposals for the coastal zone.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

18. There is evidence of experimentation by key players in relation to new institutional arrangements for coastal zone management.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

19. There is recognition that the dispersal of powers between stakeholders is uneven and that those powers may have to be redirected to achieve change.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

Integrated Coastal Zone Management Survey

20. Joint working between actors at similar spatial/administrative scales is increasing.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

21. (Optional) Further comments

Integrated Coastal Zone Management Survey

6. Decision Making

This section considers how proposals to tackle coastal issues are taken forward by stakeholders.

22. The core goals of Integrated Coastal Zone Management have been built through bargaining between interested parties.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

23. There have been clear "windows of opportunity" or events enabling coastal management policies to be placed in the legislative programme.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

24. There are now clear national public sector sponsors who are taking a lead in forwarding action on coastal management initiatives.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

Integrated Coastal Zone Management Survey

25. The emergence of a lead organisation or organisations has been legitimised by negotiation between stakeholders.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

26. There is now consensus and effective coordination between stakeholders at national and local levels.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

27. (Optional) Further comments

Integrated Coastal Zone Management Survey

7. Structuring and Implementation

This final section examines what structures have been put in place to enable Integrated Coastal Zone Management to be implemented.

28. There is a clear and consistent legal framework in place to aid the delivery of ICZM.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

29. Long term financial commitment is in place for the implementation of ICZM.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

30. Formal responsibilities for promoting coastal issues, taking objectives forward and overseeing implementation have been allocated.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

Integrated Coastal Zone Management Survey

31. The plan making process for ICZM is clearly set out.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

32. Work on measures to address coastal issues is becoming more commonplace.

- ◯ Agree strongly
- ◯ Agree somewhat
- ◯ Neither agree nor disagree
- ◯ Disagree somewhat
- ◯ Disagree strongly
- ◯ Don't know

33. (Optional) Further comments

Integrated Coastal Zone Management Survey

8. Thank You

You have now completed the Integrated Coastal Zone Management survey.

Thank you for your time and assistance with this research.

Lynne McGowan
University of Liverpool
L.McGowan@liverpool.ac.uk

Appendix C: List of Interviewees

(In alphabetical order)

Tony Andrews	Dwr Cymru/Welsh Water
George Ashworth	Monmouthshire Council and Chair of Severn Estuary Partnership Management Group
Steve Atkins	North West and North Wales Sea Fisheries Committee
Stuart Ballard	Save Our Severn
Dr. Rhoda Ballinger	School of Earth and Ocean Sciences, Cardiff University
Chris Barrow	Bristol City Council
Bridget Betts	Dorset Coast Forum
Linda Bigland	Environment Agency
Simon Boyland	United Utilities
Prof. Denys Brunsden	Retired academic, former chair of Dorset Coast Forum
Dr. Jim Claydon	Consultant
Dr. Bob Earll	Consultant
Rhona Fairgrieve	Scottish Coastal Forum
Tony Flux	The National Trust
Anne-Marie Gauld	Aberdeen City Council
Medea Gravelle	Consultant
Ian Hay	East Grampian Coastal Partnership
Carolyn Heeps	Fred Olsen Renewables
Stephen Hull	ABPmer
Ewan Lawrie	Scottish Natural Heritage
Jim Masters	Devon Maritime Forum
Capt. Robbie Middleton	Consultant, and Chair, East Grampian Coastal Partnership
Jonathan Mullard	Severn Estuary Partnership
Paul Roberts	Consumer Council for Water
Howard Stevenson	Local Area Fisheries Advisory Group
Mike Willis	Countryside Council for Wales

Appendix D: Questionnaire Responses

ICZM Questionnaire

Statement		Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	Skipped Question
Problem Recognition	**4**	14	19	1	0	0	1	5
	5	7	18	6	1	0	3	5
	6	12	16	3	1	1	2	5
	7	2	19	9	4	1	0	5
	8	2	8	4	13	6	2	5
	9	10	13	7	1	1	3	5
	10	9	24	0	0	2	0	5
	11	n	n	n	n	n	n	27
Consensus Building	**12**	1	12	6	8	7	0	6
	13	13	14	4	0	0	3	6
	14	19	9	2	2	1	1	6
	15	6	18	0	8	1	1	6
	16	n	n	n	n	n	n	26
Exploring Options	**17**	2	14	6	2	2	7	7
	18	3	11	6	5	1	7	7
	19	4	15	5	4	1	4	7
	20	3	19	7	1	0	3	7
	21	n	n	n	n	n	n	31
Decision Making	**22**	2	14	9	3	3	1	8
	23	5	17	4	3	1	2	8
	24	2	23	1	2	0	4	8
	25	0	9	12	2	5	4	8
	26	2	6	6	11	5	2	8
	27	n	n	n	n	n	n	32
Structuring and Implementation	**28**	1	2	5	12	9	3	8
	29	1	2	2	8	16	3	8
	30	1	7	5	10	6	3	8
	31	1	6	3	12	7	3	8
	32	1	24	4	1	0	2	8
	33	n	n	n	n	n	n	31

Note: the numbers shown are counts of individual responses to the questionnaire, not percentages.

Questionnaire Responses – MSP Questionnaire

Statement		Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	Skipped Question
Problem Recognition	**4**	9	8	0	0	0	0	0
	5	6	8	0	3	0	0	0
	6	9	5	1	1	1	0	0
	7	4	8	1	3	0	1	0
	8	2	8	3	0	3	1	0
	9	1	8	6	2	0	0	0
	10	7	10	0	0	0	0	0
	11	n	n	n	n	n	n	11
Consensus Building	**12**	2	8	0	5	1	0	1
	13	9	7	0	0	0	0	1
	14	7	9	0	0	0	0	1
	15	5	9	0	1	1	0	1
	16	n	n	n	n	n	n	10
Exploring Options	**17**	2	6	4	3	1	0	1
	18	2	5	5	3	1	0	1
	19	4	4	2	3	1	2	1
	20	2	6	5	2	0	1	1
	21	n	n	n	n	n	n	12
Decision Making	**22**	0	7	2	3	3	2	2
	23	1	7	1	3	2	1	2
	24	5	4	3	2	0	1	2
	25	1	4	2	4	3	1	2
	26	1	1	4	3	6	0	2
	27	n	n	n	n	n	n	13
Structuring and Implementation	**28**	2	4	1	5	3	0	2
	29	0	1	5	4	5	0	2
	30	2	6	0	3	4	0	2
	31	2	3	1	4	5	0	2
	32	2	9	4	0	0	0	2
	33	n	n	n	n	n	n	13

Questionnaire Responses – RBMP Questionnaire

Statement		Agree Strongly	Agree Somewhat	Neither Agree nor Disagree	Disagree Somewhat	Disagree Strongly	Don't Know	Skipped Question
Problem Recognition	**4**	3	1	2	0	0	0	0
	5	2	1	2	0	0	1	0
	6	1	3	1	1	0	0	0
	7	1	4	1	0	0	0	0
	8	0	2	2	1	1	0	0
	9	1	2	3	0	0	0	0
	10	3	2	1	0	0	0	0
	11	n	n	n	n	n	n	6
Consensus Building	**12**	0	3	0	3	0	0	0
	13	1	2	1	1	0	1	0
	14	4	1	1	0	0	0	0
	15	0	4	1	0	1	0	0
	16	n	n	n	n	n	n	6
Exploring Options	**17**	0	1	4	1	0	0	0
	18	0	2	3	1	0	0	0
	19	1	3	1	1	0	0	0
	20	1	2	2	0	0	1	0
	21	n	n	n	n	n	n	5
Decision Making	**22**	0	3	1	0	2	0	0
	23	0	3	2	1	0	0	0
	24	1	3	1	1	0	0	0
	25	0	2	0	4	0	0	0
	26	0	0	4	0	2	0	0
	27	n	n	n	n	n	n	5
Structuring and Implementation	**28**	2	1	0	3	0	0	0
	29	0	1	0	1	4	0	0
	30	0	1	2	2	1	0	0
	31	1	4	0	0	1	0	0
	32	0	4	0	0	2	0	0
	33	n	n	n	n	n	n	5

ICZM Questionnaire - Personal Details Section

- 27 respondents gave their full name
- 28 respondents gave the name of an organisation they represent

Length of involvement in coastal issues:

Time	Number of respondents
Less than a year	1
1-2 years	1
2-5 years	8
5-10 years	9
Over 10 years	21

MSP Questionnaire

- 13 respondents gave their full name
- 14 respondents gave the name of an organisation they represent

Length of involvement in marine issues:

Time	Number of respondents
Less than a year	0
1-2 years	0
2-5 years	2
5-10 years	2
Over 10 years	13

RBMP Questionnaire

- 6 (all) respondents gave their full name
- 6 (all) respondents gave the name of an organisation they represent

Length of involvement in catchment issues:

Time	Number of respondents
Less than a year	0
1-2 years	1
2-5 years	0
5-10 years	0
Over 10 years	5